CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

ORDER NO. R2-2002-0027

NPDES PERMIT NO. CA0037788

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF BURLINGAME

BURLINGAME, SAN MATEO COUNTY

February 27, 2002

TABLE OF CONTENTS

LIST OF TABLES

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

FINAL ORDER NO. R2-2002-0027

NPDES PERMIT NO. CA0037788

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF BURLINGAME

WASTEWATER TREATMENT PLANT

BURLINGAME, SAN MATEO COUNTY

Findings

The California Regional Water Quality Control Board, San Francisco Bay Region, (the Board) finds that:

1. *Discharger and Permit Application.* The City of Burlingame (the Discharger), has applied to the Board for reissuance of waste discharge requirements and a permit to discharge treated wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES).

Facility Description

2. *Facility Location, Service Area, Population, and Capacity.* The discharger owns and operates the Burlingame Wastewater Treatment Plant (WWTP), located at 1103 Airport Boulevard, Burlingame, San Mateo County, California. The plant provides secondary level treatment of wastewater from domestic, commercial and industrial sources within the City of Burlingame. The discharger's service area has a present population of about 37,000. The plant has an average dry weather flow design capacity of 5.5 million gallons per day (MGD) and a peak wet weather secondary treatment capacity of 16 MGD. The discharger has a primary treatment capacity of 25 MGD and disinfection capacity of 20 MGD. During wet weather operations, the aeration basins and secondary clarifiers may be bypassed, with the final effluent being a blend of disinfected, primary-treated effluent and disinfected, secondary-treated effluent. Blending is done to avoid hydraulic overload of the activated sludge process and associated solids inventory washout. The plant presently discharges an average dry weather flow of 3.56 MGD, an annual average flow of 4.08 MGD, and maximum wet weather flow rate of 14.17 MGD (1999 data). A location map of the Discharger's facilities is included as Attachment A of this Order.

3. *Discharge Location – San Francisco Bay*. Treated, disinfected wastewater is discharged to the North Bayside System Unit (NBSU) force main. The members of NBSU are the Cities of Milbrae, South San Francisco, and San Bruno, and San Francisco International Airport. Treated, disinfected wastewater collected by NBSU is dechlorinated at the NBSU dechlorination plant, and the combined effluent is discharged to Lower San Francisco Bay via a submerged deepwater outfall at Latitude 37

degrees, 39 minutes, 55 seconds N and Longitude 122 degrees, 21 minutes, 41 seconds W. The discharge achieves a receiving water to effluent initial dilution of at least 10:1 at all times, and is classified by the Board as a deepwater discharge.

4. Waste Discharge Requirements Order No. 95-208, as amended by Order 98-117, both adopted by the Board, previously governed these discharges.

5. The U.S. Environmental Protection Agency (U.S. EPA) and the Board have classified this discharge as a major discharge.

Treatment Process Description

6. *Treatment Process.* The discharger's treatment process consists: of bar screening, grit removal, primary clarification, biological secondary treatment via activated sludge, secondary clarification, and chlorination. Treated effluent is dechlorinated by NBSU as described in Finding 3, above.

7. *Solids Treatment, Handling and Disposal.* Solids removed from the wastewater stream are thickened, anaerobically digested, and then dewatered by a belt filter press. In 2000, the WWTP generated a total volume of 690.5 dry metric tons of Class B biosolids for land application. The Discharger currently contracts through its agent, USFilter, to have all the biosolids generated at the WWTP hauled and land applied by SynaGro West, Inc., its contract land applier. Under the terms of that contract, SynaGro is responsible for complying with the monitoring and reporting requirements of the 40 CFR 503 regulations for the biosolids, and files annual reports with U.S. EPA Region IX. (See Section D. Sludge Management Practices, below)

Stormwater Discharge Description

Treatment Plant Stormwater Discharges.

8. a. *Regulations.* Federal Regulations for stormwater discharges were promulgated by the U.S. EPA on November 19, 1990. The regulations [40 CFR Parts 122, 123, and 124] require specific categories of industrial activity (industrial stormwater) to obtain an NPDES permit and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial stormwater discharges.

   b. *Coverage under Statewide Stormwater General Permit.* The State Water Resources Control Board (the State Board) adopted a statewide NPDES permit for stormwater discharges associated with industrial activities (NPDES General Permit CAS000001) on November 19, 1991, amended it on September 17, 1992, and reissued it on April 17, 1997. The WWTP is covered under NPDES General Permit CAS000001.

Regional Monitoring Program

9. On April 15, 1992, the Board adopted Resolution No. 92-043 directing the Executive Officer to implement a Regional Monitoring Program for the San Francisco Bay. Subsequent to a public hearing and various meetings, Board staff requested major permit holders in this region, under authority of section 13267 of California Water Code, to report on the water quality of the estuary. These permit holders, including the Discharger, responded to this request by participating in a collaborative effort, through the San Francisco Estuary Institute (formerly the Aquatic Habitat Institute). This effort is known as the San Francisco Bay Regional Monitoring Program for Trace Substances (the RMP). This

Applicable Plans, Policies and Regulations

Basin Plan

10. The Board adopted a revised *Water Quality Control Plan San Francisco Bay Basin (Region 2)* (the Basin Plan) on June 21,1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Board on July 20, 1995 and the Office of Administrative Law on November 13, 1995. A summary of the regulatory provisions is contained in Title 23 of the California Code of Regulations, Section 3912. The Basin Plan identifies beneficial uses and water quality objectives for waters of the state in the Region, including surface waters and groundwaters. The Basin Plan also identifies discharge prohibitions intended to protect identified beneficial uses. This Order implements the plans, policies and provisions of the Basin Plan.

Beneficial Uses

11. Beneficial uses for the Lower San Francisco Bay receiving water, as identified in the Basin Plan (Table 2-4 on pg. 2-17), and based on known uses of the receiving waters in the vicinity of the discharge, are:

    – Industrial Service Supply
    – Navigation
    – Water Contact Recreation
    – Non-contact Water Recreation
    – Ocean Commercial and Sport Fishing
    – Wildlife Habitat
    – Preservation of Rare and Endangered Species
    – Fish Migration
    – Shellfish Harvesting
    – Estuarine Habitat

State Implementation Policy (SIP)

12. The SWRCB adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Plan or SIP) on March 2, 2000 and the Office of Administrative Law (OAL) approved the SIP on April 28, 2000. By letter dated May 1, 2001, the U.S. EPA approved "those portions of the Policy that are subject to EPA's water quality standard approval authority under section 303(c) of the CWA." The letter indicated that EPA would comment on NPDES permit-related provisions separately. The letter also indicated that the longer TMDL-related compliance schedule provisions continue to be under U.S. EPA review. EPA approved Sections 1.1; 1.4.2 (mixing zones and dilution credits); 2 (through 2.2.1) (compliance schedules, except as noted above); 5.2 (site-specific objectives); 5.3 (exceptions) and Appendices 1 and 3. The SIP applies to discharges of toxic pollutants in the inland surface waters, enclosed bays and estuaries of California subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code) and the Federal Clean Water Act. The SIP

establishes implementation provisions for priority pollutant criteria promulgated by the U.S. EPA through the National Toxics Rule (NTR) and California Toxics Rule (CTR), and for priority pollutant objectives established by the Regional Water Quality Control Boards (RWQCBs) in their water quality control plans (basin plans). The SIP also establishes monitoring requirements for 2,3,7,8-TCDD equivalents, chronic toxicity control provisions, and Pollutant Minimization Programs.

California Toxics Rule (CTR)

13. The U.S. EPA published the *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* on May 18, 2000 (Federal Register, Volume 65, Number 97, 18 May 2000). These standards are generally referred to as the California Toxics Rule (CTR). The CTR specifies water quality criteria for numerous pollutants, some of which are applicable to the Discharger's effluent discharges.

Other Regulatory Bases

14. Water quality objectives, criteria and effluent limitations in this permit are based on:

- the SIP;
- the plans, policies and water quality objectives and criteria of the Basin Plan;
- the CTR;
- Quality Criteria for Water [EPA 440/5-86-001, 1986] and subsequent amendments, (the U.S. EPA Gold Book);
- applicable Federal Regulations [40 CFR Parts 122 and 131];
- the National Toxics Rule (the NTR) as promulgated [Federal Register Volume 57, 22 December 1992, page 60848;
- 40 CFR Part 131.36(b) and amended [Federal Register Volume 60, Number 86, 4 May 1995, pages 22229-22237];
- the U.S. EPA's December 10, 1998 National Recommended Water Quality Criteria compilation [Federal Register Vol. 63, No. 237, pp. 68354-68364]; and
- Best Professional Judgment (BPJ) as defined in the Basin Plan.

15. In addition to the documents listed above, other U.S. EPA guidance documents upon which BPJ was developed include in part:

- U.S. EPA Region 9 *Guidance For NPDES Permit Issuance*, February 1994;
- *Technical Support Document for Water Quality Based Toxics* Control (March 1991) (TSD);
- *Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria*, October 1, 1993;
- *Whole Effluent Toxicity (WET) Control Policy*, July 1994;
- *National Policy Regarding Whole Effluent Toxicity Enforcement*, August 14, 1995;
- *Clarifications Regarding Flexibility in 40 CFR Part 136 Whole Effluent Toxicity (WET) Test Methods*, April 10, 1996;
- U.S. EPA Regions 9 & 10 *Guidance for Implementing Whole Effluent Toxicity Programs Final*, May 31, 1996;
- *Draft Whole Effluent Toxicity (WET) Implementation Strategy*, February 19, 1997.

Bases for Effluent Limitations

General Basis

16. *Federal Water Pollution Control Act*. Effluent limitations and toxic effluent standards are established pursuant to sections 301 through 305, and 307 of the Federal Water Pollution Control Act, and amendments thereto, which are applicable to the discharges herein.

Applicable Water Quality Objectives

17. The water quality objectives (WQOs) applicable to the receiving water of this discharger are from the Basin Plan, the CTR, and the NTR.

    a. The Basin Plan specifies numeric WQOs for 10 priority toxic pollutants, as well as narrative WQOs for toxicity and bioaccumulation in order to protect beneficial uses. The pollutants for which the Basin Plan specifies numeric objectives are arsenic, cadmium, chromium (IV), copper in freshwater, lead, mercury, nickel, silver, zinc, and cyanide. The narrative toxicity objective states in part "All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms." (pg. 3-4). The bioaccumulation objective states in part "[c]ontrollable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life." (pg. 3-2). Effluent limitations and provisions contained in this Order are designed to implement these objectives, based on available information.

    b. The CTR specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to inland surface waters and enclosed bays and estuaries such as here, except that where the Basin Plan's Tables 3-3 and 3-4 specify numeric objectives for certain of these priority toxic pollutants, the Basin Plan's numeric objectives apply over the CTR (except in the South Bay south of the Dumbarton Bridge).

    c. The NTR established numeric aquatic life criteria for selenium for waters of San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. This includes the receiving water for this discharge.

18. Where numeric effluent limitations have not been established or updated in the Basin Plan, 40 CFR Part 122.44(d) specifies that water quality based effluent limits (WQBELs) may be set based on U.S. EPA criteria, and supplemented where necessary by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses. Discussion of the specific bases and rationale for effluent limits are given in the associated Fact Sheet for this Permit, which is incorporated as part of this Order.

Basin Plan Receiving Water Salinity Policy

19. The Basin Plan states that the salinity characteristics (i.e., freshwater vs. saltwater) of the receiving water shall be considered in determining the applicable WQOs. Freshwater objectives apply to discharges to waters both outside the zone of tidal influence and with salinities lower than 5 parts per thousand (ppt) at least 75 percent of the time. Saltwater objectives shall apply to discharges to waters with salinities greater than 5 ppt at least 75 percent of the time. For discharges to waters with salinities in between the two categories or tidally influenced freshwaters that support estuarine

beneficial uses, the objectives shall be the lower of the salt or freshwater objectives, based on ambient hardness, for each substance (Basin Plan, pp. 4 – 13).

CTR Receiving Water Salinity Policy

20. The CTR states that the salinity characteristics (i.e., freshwater vs. saltwater) of the receiving water shall be considered in determining the applicable water quality criteria. Freshwater criteria shall apply to discharges to waters with salinities equal to or less than one ppt at least 95 percent of the time. Saltwater criteria shall apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to water with salinities in between these two categories, or tidally influenced freshwaters that support estuarine beneficial uses, the criteria shall be the lower of the salt or freshwater criteria, (the latter calculated based on ambient hardness), for each substance.

Receiving Water Salinity

21. The receiving waters for the subject discharge are the waters of Lower San Francisco Bay. Regional Board staff evaluated RMP salinity data from the three nearest receiving water stations, Alameda, Oyster Point and San Bruno Shoal, for the period February 1996 – August 1999. During that period, the receiving water's minimum salinity was 12 parts per thousand (ppt) its maximum salinity was 31.4 ppt, and its average salinity was 23.4 ppt. These data are all well above both the Basin Plan and CTR thresholds for salt water; therefore the limits in this Order are based on salt water criteria.

Technology Based Effluent Limits

22. Permit effluent limits for conventional pollutants are technology-based. Technology-based effluent limitations are put in place to ensure that full secondary treatment is achieved by the wastewater treatment facility. This Order's limits are the same as the previous permit's for the following constituents:

    - biochemical oxygen demand (BOD),
    - pH,
    - BOD percent removal,
    - coliform,
    - total suspended solids (TSS),
    - TSS percent removal,
    - settleable matter, and
    - total chlorine residual.

    Technology-based oil and grease limits have been added to this permit based on Basin Plan requirements.

Water Quality Based Effluent Limitations

23. Toxic substances are regulated by WQBELs derived from water quality criteria listed in the Basin Plan, the NTR, the CTR, the SIP, or U.S. EPA Gold Book, and/or BPJ. This Order's WQBELs are revised and updated from the previous permit's limits and their presence in this Order is based on the Reasonable Potential Analysis evaluation of the Discharger's data, as described the Reasonable Potential Analysis section, below. Numeric WQBELs are required for all constituents that have

reasonable potential to cause or contribute to an excursion above any State water quality standard (that have reasonable potential). Reasonable potential is determined and final WQBELs are developed using the methodology outlined in the SIP. If the Discharger demonstrates that meeting the final limits is infeasible and provides justification for a compliance schedule, then interim limits will be established, with a compliance schedule for achieving the final limits. The attached Fact Sheet contains further details about specific WQBELs, and the Fact Sheet is incorporated as part of this Order.

Receiving Water Ambient Background Data used in Calculating WQBELs

24. Ambient background values are utilized in the Reasonable Potential Analysis (the RPA) and in the calculation of effluent limitations. For the RPA, ambient background concentrations are the observed maximum water column concentrations. The SIP states that for calculating WQBELs, ambient background concentrations are either the observed maximum ambient water column concentrations, or, for criteria/objectives intended to protect human health from carcinogenic effects, the arithmetic mean of observed ambient water concentrations. Regional Board staff determined that maximum observed concentrations of inorganic and organic constituents in Central San Francisco Bay are most representative of ambient background conditions within the Bay. The RMP stations at Yerba Buena Island and Richardson Bay located in the Central Bay have been sampled for most of the inorganic (CTR constituent numbers 1-15) and some of the organic toxic pollutants. WQBELs were calculated using RMP data from 1992 through 1998 for inorganics and 1993 through 1998 for organics. Regional Board staff used the RMP data set from 1992 through 1998 to determine the following total recoverable metals ambient background concentrations listed in Table 1, below. Not all the constituents listed in the CTR were analyzed by the RMP during this time. This data gap is addressed by the Board's August 6, 2001 letter formally requiring (pursuant to Section 13267 of the California Water Code) the Discharger to conduct ambient background monitoring for those constituents not currently sampled by the RMP and to provide this technical information to the Board (the Board's August 6, 2001 letter). Upon completion of the required ambient background monitoring, the Board shall use the gathered data to conduct the RPA and determine if a water-quality based effluent limitation is required.

Table 1. Total Recoverable Metals Ambient Background Concentrations

	Constituent, µg/L									
	Arsenic	**Cadmium**	**Chromium**	**Copper**	**Lead**	**Mercury**	**Nickel**	**Selenium**	**Silver**	**Zinc**
Arithmetic Mean	1.86	0.064	1.44	1.8	0.29	0.003	2.10	0.12	0.01	2.37
Maximum Observed	2.22	0.13	4.4	2.45	0.8	0.006	3.5	0.19	0.07	4.6

Constituents Identified in the 303(d) List

25. On May 12, 1999, the U.S. EPA approved a revised list of impaired water bodies prepared by the State (the 303(d) list). The list was prepared pursuant to provisions of Section 303(d) of the federal Clean Water Act requiring identification of specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. Lower San Francisco Bay is listed as impaired by:

- chlordane,
- copper,
- DDT,
- diazinon,
- dieldrin,
- dioxin and furan compounds,
- mercury,
- nickel,
- total PCBs,
- PCBs (dioxin like),
- Selenium, and
- Exotic species.

Dilution and Assimilative Capacity

26. In response to the State Board's Order No. WQ 2001-06, staff has evaluated the assimilative capacity of the receiving water for 303(d) listed pollutants for which the Discharger has reasonable potential. The evaluation included a review of RMP data (local and Central Bay stations), effluent data, and WQOs. From this evaluation, staff has found that the assimilative capacity is highly variable due to the complex hydrology of the receiving water. Therefore, there is uncertainty associated with the representative nature of the appropriate ambient background data to conclusively quantify the assimilative capacity of the receiving water. Pursuant to Section 1.4.2.1 of the SIP, "dilution credit may be limited or denied on pollutant-by-pollutant basis…" For bioaccumulative pollutants, based on best professional judgement, dilution credit is not included in calculating the final WQBELs. Furthermore, Section 2.1.1 of the SIP states that for bioaccumulative compounds on the 303(d) list, the Board should consider whether mass loading limits should be limited to current levels. The Board finds that mass loading limits are warranted for the bioaccumulative compounds on the 303(d) list for the receiving waters of this discharge. However, in calculating the final WQBELs for non-bioaccumulative constituents, it is assumed that there is assimilative capacity based on best professional judgment, and a 10:1 dilution is granted.

Total Maximum Daily Loads (TMDLs) and Waste Load Allocations (WLAs)

27. The Board plans to adopt Total Maximum Daily Loads (TMDLs) for pollutants on the 303(d) list in Lower San Francisco Bay no later than 2010, with the exception of dioxin and furan compounds. The Board defers development of the TMDL for dioxin and furan compounds to the U.S. EPA. Future review of the 303(d) list for Lower San Francisco Bay may result in revision of the schedules and/or provide schedules for other pollutants.

28. The TMDLs will establish waste load allocations (WLAs) and load allocations (LAs) for point sources and non-point sources, respectively, and will result in achieving the water quality standards for the waterbody. The final effluent limitations for this discharge will be based on WLAs that are derived from the TMDLs.

29. The following summarizes the Board's strategy to collect water quality data and to develop TMDLs:

    a. Data collection – The Board will request dischargers collectively assist in developing and implementing analytical techniques capable of detecting 303(d)-listed pollutants to at least their respective levels of concern or water quality objectives. This collective effort may include

development of sample concentration techniques for approval by the U.S. EPA. The Board will require dischargers to characterize the pollutant loads from their facilities into the water-quality limited waterbodies. The results will be used in the development of TMDLs, and may be used to update/revise the 303(d) list and/or change the water quality objectives for the impaired waterbodies including Lower San Francisco Bay.

b. Funding mechanism – The Board has received, and anticipates continued receipt of, resources from federal and state agencies for the development of TMDLs. To ensure timely development of TMDLs, the Board intends to supplement these resources by allocating development costs among dischargers through the RMP or other appropriate funding mechanisms.

Interim Limits and Compliance Schedules

30. Pursuant to Section 2.1.1 of the SIP,

> " the compliance schedule provisions for the development and adoption of a TMDL only apply when: …(b) the Discharger has made appropriate commitments to support and expedite the development of the TMDL. In determining appropriate commitments, the RWQOB should consider the discharge's contribution to current loadings and the Discharger's ability to participate in TMDL development."

The discharger has agreed to assist the Board in TMDL development through active participation and contribution to the Bay Area Clean Water Agencies (BACWA). The Board adopted Resolution No. 01-103, on September 19, 2001, which authorizes the Executive Officer of the Board to enter into a Memorandum of Understanding with BACWA, and other parties to accelerate the development of Water Quality Attainment Strategies including TMDLs for the San Francisco Bay-Delta and its tributaries.

31. Until final WQBELs or WLAs are adopted, state and federal anti-backsliding and antidegradation policies and the SIP, require that the Board include interim effluent limitations. The interim effluent limitations will be the lower of the following:

a. current performance; or

b. the previous permit's limits

In addition to interim concentration limits this Order establishes interim performance-based mass limitations to maintain the current mass loadings of 303(d)-listed bioaccumulative pollutants (e.g., mercury) by the discharge. These interim performance-based mass limits are based on recent discharge data. Where pollutants have existing high detection limits and quantified concentration data are inadequate, interim mass limits are not established because meaningful performance-based mass limits cannot be calculated for pollutants with insufficient quantified concentration data. However, the Discharger may investigate alternative analytical procedures that would result in lower detection limits, either by participating in new or ongoing RMP special studies, or through equivalent studies conducted jointly with other Dischargers.

32. If an existing discharger cannot immediately comply with a new and more stringent effluent limitation, the SIP and the Basin Plan authorize a compliance schedule in the permit. Compliance schedules would be based on Section 2.2 of the SIP for limits derived from CTR criteria, or based on the Basin Plan for limits derived from the Basin Plan WQOs. To qualify for a compliance schedule, both the SIP and the Basin Plan require that the Discharger demonstrate that it is infeasible to achieve

- Documentation that diligent efforts have been made to quantify pollutant levels in the discharge and sources of the pollutant in the waste stream, including the results of those efforts;

- Documentation of source control and/or pollution minimization efforts currently under way or completed;

- A proposed schedule for additional or future source control measures, pollutant minimization or waste treatment; and

- A demonstration that the proposed schedule is as short as practicable

33. During the compliance schedules, interim limits are included based on current treatment facility performance or on the previous permit's limits, whichever is more stringent, to maintain existing water quality. The Board may take appropriate enforcement actions if interim limits and requirements are not met.

34. On January 18, 2002, the Discharger submitted a final feasibility study (the January 18, 2002 Feasibility Study) to demonstrate that it is infeasible to immediately comply with certain of the WQBELs calculated according to Section 1.4 of the SIP. The Board concurs that it is infeasible for the discharger to immediately comply with the WQBELs for copper, mercury, alpha-BHC and dieldrin. Therefore, this Order establishes compliance schedules for these pollutants. For limits based on CTR or NTR criteria (I.e., copper, alpha BHC and dieldrin) this Order establishes a five-year compliance schedule as allowed by the CTR and SIP. For limits based on the Basin Plan numeric objectives (i.e., mercury), this Order establishes a compliance schedule until March 31, 2010. The bases for the limits contained in this Permit are delineated in Table E of the attached Fact Sheet. The Basin Plan provides for a 10-year compliance schedule for implementation of measures to comply with new standards as of the effective date of those standards. This provision has been construed to authorize compliance schedules for new interpretations of existing standards, such as the numeric water quality objectives specified in the Basin Plan, resulting in more stringent limits than in the previous permit. Due to the adoption of the SIP, the Board has newly interpreted these objectives. As a result of applying the SIP methodologies, the effluent limitations for some pollutants are more stringent than the prior permit's. Accordingly, a compliance schedule is appropriate here for the new limits for these pollutants.

    Since the compliance schedules for CTR criteria and Basin Plan numeric water quality objectives both exceed the length of the permit which is 4 years and 11 months, these calculated final limits are intended as points of reference for the feasibility demonstration and are only included in the findings by reference to the fact sheet. Additionally, the actual final WQBELs for these pollutants will very likely be based on either the Site Specific Objective (SSO) or TMDLs/WLAs as described in other findings specific to each of the pollutants.

Antibacksliding and Antidegradation

35. The interim limits in this permit comply with anti-degradation and anti-backsliding requirements because they hold the Discharger to current facility performance, and because the final limits comply with anti-degradation and anti-backsliding requirements.

Specific Basis

Reasonable Potential Analysis

36. Title 40 CFR Part 122.44(d) (1) (i) requires permits to include WQBELs for all pollutants "which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard." Using the method prescribed in Section 1.3 of the SIP, Regional Board staff have analyzed the effluent data to determine if the discharges, which are the subject of this Permit and Order, have a reasonable potential to cause or contribute to an excursion above a State water quality standard (have reasonable potential). This is the RPA referenced in Finding 23, above. For all parameters that have reasonable potential, numeric WQBELs are required. The RPA compares the effluent data with numeric and narrative WQOs in the Basin Plan and numeric WQOs from the U.S. EPA Gold Book, the NTR, and the CTR.

Reasonable Potential Methodology.

37. The RPA involves identifying the observed maximum pollutant concentration in the effluent (MEC) for each constituent, based on effluent concentration data.

    a. The RPA is carried out using the steps outlined in Section 1.3 of the SIP. The RPA for all constituents is based on zero dilution, pursuant to section 1.3 of the SIP.

    b. There are three triggers in determining reasonable potential:

        i. The first trigger is activated if the maximum effluent concentration (MEC) is greater than the lowest applicable WQO (i.e. MEC>WQO), which has been adjusted for pH, and translator data, if appropriate. If the MEC is greater than the adjusted WQO, then there is reasonable potential for that constituent to cause or contribute to an excursion above the WQO, and a WQBEL is required.

        ii. The second trigger is activated if:

            1) the observed maximum ambient background concentration (B) is greater than the adjusted WQO (i.e. B>WQO), and

                a) the MEC is less than the adjusted WQO (i.e. MEC<WQO), or

                b) the pollutant was not detected in any of the effluent samples and all of the detection levels are greater than or equal to the adjusted WQO.

            If B is greater than the adjusted WQO, then a WQBEL is required.

        iii. The third trigger is activated if a review of other information determines that a WQBEL is required to protect beneficial uses, even if both MEC and B are less than the WQO. A limit is only required under certain circumstances to protect beneficial uses.

Summary of RPA Data and Results

38. The RPA was based on monthly effluent monitoring data from January 1998 through July 2001 for metals, mercury, and cyanide; and more limited monitoring data from 1997 through 2000 for organic toxic pollutants. Based on the RPA methodology in the SIP, the following constituents have been found to have reasonable potential to cause or contribute to an excursion above water quality objectives:

    - copper,
    - mercury,
    - nickel,
    - cyanide,
    - silver,
    - zinc,
    - alpha-BHC,
    - 4,4-DDE and
    - dieldrin.

    Based on the RPA, numeric WQBELs are required for these constituents.

RPA Determinations.

39. The maximum effluent concentrations (MEC), governing WQOs, bases for the WQOs, background concentrations used and reasonable potential conclusions from the RPA are listed in the following table for all constituents found to have reasonable potential. The RPA results for most of the constituents in the CTR (Nos. 17-126 except 103,109 and 111) were indeterminate because of the lack of background data, WQOs, or effluent data. Further details on the RPA are contained in the attached Fact Sheet.

Table 2. Summary of Reasonable Potential Analysis results.
Complete results in Table B in Fact Sheet.

Constituent[1]		WQO (µg/L)	Basis[2]	MEC, µg/L	Maximum Ambient Background Concentration, µg/L	Reasonable Potential
CTR #	**Name**					
2	Arsenic	36	BP	4.0	2.22	No
4	Cadmium	9.3	BP	0.07	0.13	No
5b	Chromium VI	50	BP	4.7	4.4	No
6	Copper*	3.7	CTR	17	2.45	Yes*
7	Lead	5.6	BP	4	2.38	No
8	Mercury*	0.025	BP	0.554	0.0064	Yes*
9	Nickel*	7.1	BP	8.7	5.9	Yes*
10	Selenium	5.0	NTR	1.2	0.19	No
11	Silver	2.3	BP	4	0.07	Yes
13	Zinc	58	BP	60	13.3	Yes
14	Cyanide	1	NTR	20.5	N/A	Yes
16	TCDD*TEQ	0.000000014	CTR	NA	NA	[3]
103	Alpha-BHC	0.013	CTR	0.04	NA	Yes
111	Dieldrin*	0.00014	CTR	0.075	0.000264	Yes
109	4,4-DDE*	0.00059	CTR	All non-detect	0.00069	Yes
	All others (CTR #'s 17 –126 except above)	Various or NA	CTR	Non-detect, less than WQO, or no WQO	Less than WQO or Not Available	No or [3]

Footnotes for Table 2:

1. * indicates constituents on 303(d) list; Dioxin applies to Toxicity Equivalent (TEQ) of 2,3,7,8-TCDD.

2. BP = Basin Plan; CTR = California Toxics Rule

3. Undetermined due to lack of background data, lack of objective, and/or lack of effluent data (See Fact Sheet Table B for full RPA results).

Interim Limits with Compliance Schedules.

40. The Discharger has demonstrated in its January 18, 2002 *Updated Feasibility Study and Request for Compliance Schedule for City of Burlingame, NPDES Permit No. CA0037788* (the January 18, 2002 Feasiblity Study) that it is infeasible to meet the final WQBELs calculated according to Section 1.4 of the SIP for copper, mercury, alpha-BHC and dieldrin, thereby complying with the infeasibility requirements in Section 2.1 of the SIP. This Order establishes compliance schedules for these pollutants that extend beyond one year. The SIP, and 40 CFR Part 122.47, require that the Board shall establish interim numeric limitations and interim requirements to control these pollutants. This Order establishes interim limits for these pollutants based on the previous permit limit or plant performance, whichever is more stringent, as described in in the findings for specific pollutants, below. Specific bases for these interim limits are described in the following findings for each pollutant. This Order

also establishes interim requirements in a provision for development and/or improvement of a Pollution Prevention Program to reduce pollutant loadings to the treatment plant, and for submittal of annual reports on this Program.

41. Pursuant to the SIP (Section 2.2.2, Interim Requirements for Providing Data), where available data are insufficient to calculate a final effluent limit (e.g., cyanide), a data collection period of May 18, 2003 is established. This Order contains a provision requiring the Discharger to conduct studies for collecting ambient background data and for determining site-specific objectives. The discharger is required to participate in an ongoing group effort to implement the studies and submit reports to the Board by 2003. The Board intends to include, in a subsequent permit revision, a final limit based on the study required as an enforceable limit. However, if the Discharger requests and demonstrates that it is infeasible to comply with the revised final limit, the permit revision will establish a maximum five-year compliance schedule.

RPA Results for Impairing Pollutants.

Specific Pollutants

Phenols.

42. This Order implements the policy and regulations of the CTR and SIP in regard to phenolic compounds. The previous permit contained an effluent limit for total phenols of 500 ug/l, based on a technology based effluent limit established in the Basin Plan. The CTR specifies criteria for individual phenolic compounds that are a subset of total phenols. The previous total phenols limit may be more restrictive for several phenolic compounds (e.g., phenol, and 2,4-dimethylphenol) than the water quality-based limits calculated from the SIP, owing to their high CTR criteria. However, for most of the phenolic compounds in the CTR, the water quality based limits would be more restrictive. Retaining limits for both total and individual phenolics would potentially limit and count the same pollutant twice. Therefore, this Order follows the requirements of the CTR and SIP in lieu of the Basin Plan technology-based limit because 1) the water quality considerations of the CTR and SIP are generally more restrictive, and 2) the low historic concentrations of total phenols in the discharge. None of the individual phenol compounds included in CTR have been found in the effluent at levels above their water quality criteria (a few phenols have not been analyzed for to date). There are currently no background data to conduct an RPA for specific phenolic compounds. This Order requires the Discharger to participate in the RMP to collect additional phenol data. The permit can be re-opened to establish limits if new data show that there is reasonable potential and phenol limits are necessary.

Dioxins and Furans

43. Numeric Water Quality Objective. The CTR establishes a numeric human health WQO of 0.000000014 µg/L (equivalent to 0.014 picograms per liter - pg/L) for 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD) based on consumption of aquatic organisms. The preamble of the CTR states that California should use toxicity equivalents (TEQs) to assess the reasonable potential for dioxin-like compounds to cause or contribute to a violation of a narrative criterion. The preamble further states the U.S. EPA's intent to use the World Health Organization's 1998 Toxicity Equivalence Factor scheme (the WHO TEFs) in the future and encourages California to use the WHO TEFs in State programs. Staff used the WHO TEFs as the TEQs to translate the narrative WQOs to numeric WQOs for the other 16 congeners and to carry out an RPA for them using the RPA

procedures described above. Finally, the CTR preamble states the U.S. EPA's intent to adopt revised guidance for water quality criteria subsequent to their health reassessment for dioxin-like compounds.

44. a The SIP applies to all toxic pollutants, including dioxins and furans. The SIP requires a limit for 2,3,7,8-TCDD if a limit is necessary, and requires monitoring for a minimum of 3 years by all major NPDES Dischargers for the other sixteen dioxin and furan compounds.

b. The Basin Plan contains a narrative WQO for bio-accumulative substances:

"Many pollutants can accumulate on particulates, in sediments, or bio-accumulate in fish and other aquatic organisms. Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered."

This narrative WQO applies to dioxin and furan compounds, based in part on scientific consensus that these compounds associate with particulates, accumulate in sediments, and bio-accumulate in the fatty tissue of fish and other organisms.

c. The U.S. EPA's 303(d) listing determined that the narrative objective for bio-accumulative pollutants was not met because of the levels of dioxins and furans in the fish tissue. No Discharge data is available to show if there are dioxins and furans present in the discharge at levels above the WQ Criterion.

d. The discharger has not monitored for dioxins and furans. Therefore, no effluent data exist to conduct an RPA or calculate interim limits. Pursuant to the SIP, the Discharger will be required to monitor for dioxins and furans. Once there is enough information, Regional Board staff will conduct an RPA to determine if limits are required.

Polynuclear Aromatic Hydrocarbons

45. The RPA was conducted on individual PAHs, as required by the SIP and CTR, and not on total PAHs. The CTR specifies criteria for individual PAHs that are a subset of total PAHs. The Basin Plan's total PAHs limit may be more restrictive for several PAHs than the water quality based limits calculated from the SIP, owing to their high CTR criteria. However, for most of the PAH compounds in the CTR, the water quality based limits would be more restrictive. Retaining limits for both total and individual PAHs would potentially limit and count the same pollutant twice. Therefore, this Order follows the requirements of the CTR and SIP in lieu of the Basin Plan limit because 1) the water quality considerations of the CTR and SIP are generally more restrictive, and 2) the low historic concentrations of PAHs in the discharge. During the period January 1997 to December 1999, total PAHs were detected in the Discharger's effluent at 0.28 µg/L, 5.0 µg/L, 0.25 µg/L, and 0.20 µg/L in March 1997, July 1997, January 1998 and May 1998, respectively. These analytical results were for total PAHs and not for individual PAHs. Therefore, reasonable potential for individual PAHs cannot be determined at this time. The Board's August 6, 2001 letter requires the Discharger to characterize the effluent for individual PAH constituents with improved detection limits. Upon completion of the required effluent monitoring, the Board shall use the gathered data to complete the RPA for all individual PAH constituents listed in the CTR and determine if WQBELs are required.

4,4-DDE

46. The pollutant 4,4-DDE was not detected in the effluent, but all of the detection limits are higher than lowest the WQO (Section 1.3 of the SIP). Although Regional Board staff could not determine an

47. The current 303(d) list includes Lower San Francisco Bay as impaired for DDT; 4,4-DDE is chemically linked to the presence of DDT. The Board intends to develop TMDLs that will reduce loading of 4,4-DDE to Lower San Francisco Bay. The WQBELs specified in this Order may be changed to reflect the WLAs from these TMDLs. To assist the Board in developing the TMDLs, the Discharger may participate in coordinated efforts (e.g., through BACWA and the RMP) to investigate the feasibility and reliability of different methods of increasing sample volumes to lower the detection limit for 4,4-DDE, and to present the preferred method(s) for approval by U.S. EPA. If analytical methodologies improve and the detection levels decrease such that discharge concentrations of 4,4-DDE are detected above the limits in this Order, the Board will re-evaluate the feasibility of the Discharger complying with the limits and will determine if a compliance schedule and interim performance-based-limits are needed.

48. Since 4,4-DDE is bioaccumulative and on the 303(d) list due to fish tissue concentrations, there is no assimilative capacity, and no dilution credit was allowed in the final limit calculations.

Dieldrin.

49. The WWTP effluent was sampled once for dieldrin, and it was detected in the effluent at 0.075 µg/L, which is above the relevant WQO of 0.00014 µg/L. Therefore, Trigger 1, above, is activated and reasonable potential is confirmed. The Discharger's January 18, 2002 Feasibility Study demonstrated that it is infeasible to immediately comply with the WQBELs of 0.00026 µg/L daily maximum and 0.00014 µg/L monthly average. Therefore, an interim limit is required. Since an IPBL cannot be computed from one data point, and the previous permit did not contain a limit for dieldrin, the interim limit is set at the MEC, 0.075 µg/L. This interim limit is consistent with other interim limits set in similar cases for other NBSU dischargers.

50. The current 303(d) list includes Lower San Francisco Bay as impaired by dieldrin. The Board intends to develop a dieldrin TMDL leading to overall reduction of dieldrin loading into Lower San Francisco Bay. The WQBEL specified in this Order may be changed to reflect the TMDL's WLAs. To assist the Board in developing the TMDL, the Discharger may participate in coordinated efforts (e.g., through BACWA and the RMP) to investigate the feasibility and reliability of different methods of increasing sample volumes to lower the detection limit for dieldrin, and to present the preferred method for approval by U.S. EPA.

Alpha-BHC

51. The WWTP effluent was sampled once for alpha-BHC, and it was detected in the effluent at 0.04 µg/L. Therefore, trigger 1, above is activated, and reasonable potential is confirmed. The City's January 18, 2002 Feasibility Study demonstrated that it is infeasible for the City to immediately comply with the calculated WQBELs of 0.013 µg/L and 0.026 µg/L average monthly and daily maximum, respectively. Therefore, an interim limit is required. Since an IPBL cannot be computed from one data point, and the previous permit did not contain a limit for alpha-BHC, the interim limit is set at the MEC, 0.04 µg/L. This interim limit is consistent with other interim limits set in similar cases for other NBSU dischargers.

Other organics.

52. The discharger has generally performed organics sampling twice a year over the past few years under their pretreatment program. This sampling effort has covered most of the organic constituents listed in the CTR. This data set was used to perform the RPA for other organics. The full RPA is presented as an attachment in the Fact Sheet. For most of the priority pollutants, reasonable potential cannot be determined because ambient background concentrations are not available, and/or effluent concentrations are all nondetected with the lowest detection limit being higher than the WQO. The Discharger will continue to monitor for these constituents in the effluent and the receiving water using analytical methods that provide the best feasible detection limits. When sufficient data are available, RPAs will be completed for them to determine whether to add final effluent limitations to the permit for them or to continue monitoring them.

Permit Reopener

53. The Order includes a reopener provision to allow numeric effluent limitations to be added or deleted in the future for any constituent that exhibits or does not exhibit, respectively, reasonable potential. The Board will make this determination based on monitoring results.

Development of Specific Effluent Limitations

Copper

54. CTR Copper Water Quality Criteria. The current 303(d) list includes copper as an impairing pollutant for Lower San Francisco Bay. The saltwater criteria for copper in the adopted CTR are 3.1 µg/L for chronic protection and 4.8 µg/L for acute protection. Included in the CTR are translator values (0.83) to convert the dissolved criteria to total criteria. The discharger may perform a translator study to determine a more site-specific translator. The SIP, Section 1.4.1, and the U.S. EPA's June 1996 guidance *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion*, describe this process and provide guidance on how to establish a site-specific translator.

55. Water Effects Ratios. The CTR provides a mechanism to adjust criteria by deriving site-specific objectives (SSOs) using water-effect ratios (WERs). A WER accounts for differences between a metal's toxicity in laboratory dilution water and its toxicity in water at the site. The U.S. EPA includes WERs to ensure that the metals criteria are appropriate for the chemical conditions under which they are applied, and its February 22, 1994 *Interim Guidance on Determination and Use of Water Effects Ratios for Metals* superseded all prior U.S. EPA guidance on this subject. If the Discharger decides to pursue SSOs, they shall be developed in accordance with procedures contained in Section 5.2 of the SIP.

56. Effluent Limitation for Copper: The January 18, 2002 Feasibility Study demonstrated that it is infeasible for the Discharger to immediately comply with the calculated WQBELs of 13 µg/L monthly average and 23 µg/L daily maximum. The SIP requires that interim numeric effluent limits for the pollutant be based on either current treatment facility performance, or on the previous permit's limitation, whichever is more stringent. The previous permit contained an effluent limitation of 37 µg/L for copper, and statistical analysis of recent effluent data indicate the IPBL would be 27 µg/L. Therefore, this Order establishes an interim performance-based copper limit of 27 µg/L, which is the more stringent of the two. The Discharger is cooperating with other Dischargers from north of the Dumbarton Bridge to conduct impairment assessment studies aimed at collecting additional copper

data in Lower San Francisco Bay. The Board has considered these studies in its 303(d) listing decision in 2001, and will consider them when assessing any SSO proposed for copper. Future copper WQBELs would be developed consistent with SIP procedures in Section 5.2 if the impairment studies support adoption of an SSO. On November 28, 2001, the Board considered a staff report on Proposed Revisions to Section 303(d) List and Priorities for Development of Total Maximum Daily Loads (TMDLs) for the San Francisco Bay Region and authorized the Executive Officer to transmit proposed revisions to the State Board. Copper is proposed to be de-listed from all segments of the San Francisco Estuary north of the Dumbarton Bridge including Lower San Francisco Bay but excluding the tidal portion of the mouth of Petaluma River.

57. Effluent concentrations during the period 1998 - 2000 ranged from 0.1 µg/L to 17.0 µg/L, and the WWTP would have complied with the IPBL of 27 µg/L at all sampling events.

Mercury

Mercury Water Quality Objectives.

58. Both the Basin Plan and CTR include objectives that govern mercury in the receiving water. The Basin Plan specifies objectives for the protection of aquatic life of 0.025 µg/L as a 4-day average and 2.1 µg/L as a 1-hour average. The CTR specifies a long-term average criterion for protection of human health of 0.051 µg/L.

Mercury TMDL.

59. The current 303(d) list includes Lower San Francisco Bay as impaired by mercury, due to exceedences in fish tissue levels. Methyl-mercury is a persistent bioaccumulative pollutant. The Board intends to develop a TMDL that will reduce mercury mass loadings in Lower San Francisco Bay. The final mercury WQBEL will be derived from the Discharger's WLA contained in the TMDL, and the permit will be revised to include the final WQBEL as an enforceable limitation.

Mercury Control Strategy.

60. The Board and other stakeholders will coperatively develop mercury source control strategies as part of TMDL development. Municipal discharge point sources may not be the most significant mercury loadings to Lower San Francisco Bay. Therefore, the currently preferred strategy is applying interim mass loading limits to point-source discharges while focusing mass reduction efforts on other, more significant and controllable sources. While the TMDL is being developed, the Discharger will comply with performance-based mercury mass emission limits to cooperate in maintaining ambient receiving water conditions. Therefore, this Order includes interim concentration and mass loading effluent limitations for mercury, as described in Findings 61 and 62, below. The Discharger is required to develop source control measures and cooperatively participate in special studies as described in Finding 64 below.

Concentration-Based Mercury Effluent Limitation.

61. This Order establishes an interim monthly average limit for mercury concentrations based on staff's analysis of the performance of over 25 municipal secondary and advanced-secondary treatment plants in the Bay Area. This analysis is described in the June 11, 2001 Regional Board staff report titled "Staff Report, Statistical Analysis of Pooled Data from Region-Wide Ultra-clean Mercury Sampling" (the staff report). The objective of the analysis was to develop interim performance-based limits

(IPBLs) that characterized facility performance regionwide using only ultra-clean data. Compliance with the IPBLs will ensure no further degradation of the receiving water quality due to the discharge. The staff report's conclusions demonstrate that the statistically-based mercury IPBLs are 0.087 µg/L for a secondary plant, and 0.023 µg/L for an advanced secondary plant. The Discharger operates a secondary-level treatment plant, therefore its mercury IPBL is 0.087 µg/L. Based on the June 30, 2000 Regional Board staff report titled "Watershed Management of Mercury in the San Francisco Bay Estuary: Total Maximum Daily Load Report to U.S. EPA,", municipal sources are a very small contributor of the mercury load to the Bay. Because of this, it is unlikely that the TMDL will require reduction efforts beyond the source controls required by this permit (see Finding 64, below).

Mass-Based Mercury Effluent Limitation.

62. This Order establishes an interim mercury mass-based effluent limitation of 0.135 kilograms per month (Effluent Limitations - Section B.7.a). This mass-based effluent limitation is calculated using the statistical formulas described in the attached Fact Sheet. This mass-based effluent limitation will maintain current mercury loadings to Lower San Francisco Bay until the mercury TMDL is adopted, and is consistent with state and federal antidegradation and antibacksliding requirements. The WQBELs will be revised to be consistent with the WLA assigned in the mercury TMDL.

Treatment Plant Performance and Compliance Attainability.

63. The most recent effluent monitoring data for mercury from January 1998 through July 2001 show concentrations ranging from 0.004 to 0.554µg/L. The effluent discharged to Lower San Francisco Bay has been in consistent compliance with the previous permit limits of 1 µg/L and 0.21 µg/L. Ultra-clean sampling and analytical techniques were more consistently employed by the Discharger beginning in February 2000, and effluent mercury concentrations from that period range between 0.004 µg/L and 0.017 µg/L. These results indicate that the WWTP would be able to comply with the interim concentration-based mercury limit of 0.087 µg/L.

Mercury Source Control

64. This order establishes an interim mass-based limit for mercury and requires the Discharger to continue its existing pollution prevention and pretreatment programs to maximize practicable control over influent mercury sources. The Discharger has committed to continue, and to actively pursue opportunities to augment, its mercury source control and pollution prevention activities as a prerequisite to being granted a compliance schedule and interim mass-based limit. The Discharger should continue cooperating with other municipal Dischargers in broader efforts to maximize mercury source control and pollution prevention efforts, assess alternatives for reducing mercury loading to receiving waters, and protect their beneficial uses. This Order contains a reporting schedule for the mercury source control program.

Nickel

Nickel Water Quality Objective.

65. The Basin Plan contains numeric WQOs for total nickel of 7.1 µg/L and 140 µg/L for chronic and acute toxicity, respectively. No translator value is needed.

Effluent Limitations for Nickel.

66. The final WQBELs for nickel were calculated pursuant to procedures in the SIP, and are calculated as 64 µg/L and 32.7 µg/L daily maximum and monthly average, respectively (see the attached Fact Sheet for details). These WQBELs may be revised in the future based on the TMDL/WLA or the results of the SSO and translator studies. The current 303(d) list includes Lower San Francisco Bay as impaired by nickel. The discharger is participating in impairment assessment studies aimed at gathering additional data on nickel concentrations in Lower San Francisco Bay. The Board has considered these studies in its 303(d) listing decision in 2001, and when considering any SSO proposed for nickel. The nickel WQBEL would be developed consistent with SIP procedures in Section 5.2 if the impairment studies support adoption of an SSO. On November 28, 2001, the Board considered a staff report on Proposed Revisions to Section 303(d) List and Priorities for Development of Total Maximum Daily Loads (TMDLs) for the San Francisco Bay Region and authorized the Executive Officer to transmit proposed revisions to the State Board. Nickel is proposed to be de-listed from all segments of the San Francisco Estuary north of the Dumbarton Bridge including Lower San Francisco Bay but excluding the tidal portion of the mouth of Petaluma River.

Treatment Plant Performance and Compliance Attainability.

67. The MEC reported for nickel since 1998 has been 8.7 µg/L. The monthly average effluent limit (AMEL), calculated as required by Section 1.4 of the SIP, is 32.7µg/L, as noted above. Based on the comparison of the MEC to the AMEL, the Discharger can comply with the final WQBELs.

Silver

Water Quality Objective.

68. The Basin Plan contains a numeric WQO for total silver of 2.3 µg/L. No translator value is needed.

Effluent Limitations for Silver.

69. The calculated final WQBELs for silver are an average monthly value of 11.8 µg/L and daily maximum value of 21.8 µg/L

Treatment Plant Performance and Compliance Attainability.

70. The MEC since the beginning of 1998 has been 4 µg/L. Based on the comparison of the 4 µg/L MEC and the 11.8 µg/L AMEL calculated based on Section 1.4 of the SIP, the Discharger can comply with the final WQBELs.

Zinc

Water Quality Objective.

71. The Basin Plan contains a numeric WQO for total zinc of 58.0 µg/L as 24-hour averaged. No translator value is needed.

Effluent Limitations for Zinc.

72. The calculated final WQBELs for zinc are 691 µg/L and 497 µg/L for daily maximum and monthly average, respectively.

Treatment Plant Performance and Compliance Attainability.

73. The MEC since the beginning of 1998 has been 60 µg/L. Based on the comparison of the 60 µg/L MEC and the 497 µg/L AMEL calculated based on Section 1.4 of the SIP, the Discharger can comply with the final WQBELs.

Dioxins and Furans

Interim Monitoring Requirements.

74. The Discharger has not conducted monitoring for dioxin and furan compounds. The Board's August 6, 2001 letter requires the Discharger to monitor for dioxin and furan compounds.

Cyanide

75. Both the Basin Plan and CTR include objectives that govern cyanide for the protection of aquatic life in the receiving water. The Basin Plan specifies an objective 5 µg/L as a 1-hour average, and the CTR specifies a chronic Criterion Chronic Concentration (CCC) of 1 µg/L as a 4-day average. This CCC value is below the presently achievable reporting limit (ranges from approximately 3 to 5 µg/L).

76. The background data set was limited to six total and six dissolved data points, all non detected (<1 µg/L), collected in 1993 at Richardson Bay and Yerba Buena Island stations. The final WQBELs for cyanide will be calculated based on additional effluent and ambient background information, or a cyanide SSO. Cyanide is a regional problem associated with the analytical protocol for cyanide analysis due to matrix interferences. A body of evidence exists to show that cyanide measurements in effluent may be an artifact of the analytical method. This question is being explored in a national research study sponsored by the Water Environment Research Foundation (WERF).

77. The Discharger has raised concerns about the occurrence of artifactual (false positive) cyanide as evidenced by effluent concentrations greater than influent concentrations. The Discharger supports efforts to develop a site-specific objective for cyanide in the Bay, given that cyanide does not persist in the environment and that the current WQO was based on testing with East Coast species. A cyanide SSO for Puget Sound, Washington using West Coast species has been approved by U.S. EPA Region X.

78. This Order contains a provision requiring the Discharger, in cooperation with other dischargers in the Bay Area, to conduct a study for cyanide data collection. The Discharger, in co-operation with other Dischargers, is required to fully implement the study and submit a final report to the Board by May 18, 2003. The Board intends to include, in a subsequent permit revision, a required final limit for cyanide based on the study, as an enforceable limit. However, if the Discharger requests and demonstrates that it is infeasible to comply with the final limit, the permit revision will establish a maximum five-year compliance schedule. In the meantime, this Order establishes an interim performance limit of 10 µg/L, based on the previous Permit's limit. With the exception of one level of 20.5 µg/L in April 1998, all cyanide concentrations in the effluent since January 1998 have been below the interim limit.

Dieldrin.

79. The governing WQO for dieldrin is 0.00014 µg/L, based on CTR criteria. As noted in Findings 49 - 50, above, dieldrin has reasonable potential based on trigger 1 and permit limits are required. Using SIP procedures, Regional Board staff calculated the final WQBELs of 0.00014 µg/L monthly average and 0.00028 µg/L daily maximum. The Discharger indicated in its January 18, 2002 Feasibility Study that it is infeasible to comply immediately with the WQBELs. Therefore, pursuant to the provisions of the SIP, an interim effluent limit for dieldrin is required. The previous permit did not contain an effluent limit for dieldrin, and it is not possible to statistically determine current plant performance based on a single data point. Therefore, the interim dieldrin effluent limit is the MEC, 0.075 µg/L. This interim effluent limit is based on the best professional judgement of Regional Board staff and is consistent with interim limits set in similar situations for other NBSU members.

80. The current 303(d) list includes Lower San Francisco Bay as impaired by dieldrin. The Board intends to develop a dieldrin TMDL leading to overall reduction of dieldrin loading into Lower San Francisco Bay. The final WQBEL will be derived from the TMDL's WLAs. To assist the Board in developing the TMDL, the Discharger may participate in coordinated efforts (e.g., through BACWA and the RMP) to investigate the feasibility and reliability of different methods of increasing sample volumes to lower the detection limit for dieldrin, and to present the preferred method for approval by U.S. EPA.

4,4-DDE

81. The pollutant 4,4-DDE is chemically linked to the presence of DDT. The governing WQO for 4,4-DDE is 0.00059 µg/L, based on CTR criteria. As noted in Findings 46 - 48, above, 4,4-DDE has reasonable potential based on Trigger 2 and final WQBELs are required. The WQBELs calculated according to SIP procedures are 0.00059 µg/L monthly average and 0.00119 µg/L daily maximum. Since 4,4-DDE is bioaccumulative and on the 303(d) list due to bioconcentration in fish tissue, there is no assimilative capacity, and no dilution credit was allowed in the final limit calculation. The calculated WQBELs are below the SIP's current minimum level (ML) for 4,4, DDE, 0.05 µg/L. Therefore, compliance with the 4,4-DDE WQBELs will be determined by comparison of analytical results to the 0.05µg/L ML contained in SIP Appendix 4.

82. The current 303(d) list includes Lower San Francisco Bay as impaired by DDT. The Board intends to develop a TMDL leading to overall reduction of 4,4-DDE mass loading in Lower San Francisco Bay. The WQBELs specified in this Order may be changed to reflect the TMDL's WLAs. To assist the Board in developing TMDL, the Discharger has the option to participate in coordinated efforts (e.g., through BACWA and the RMP) to investigate the feasibility and reliability of different methods of increasing sample volumes to lower the detection limit for 4,4-DDE and present the preferred method for approval by U.S. EPA. If analytical methodologies improve and the detection levels decrease such that discharge concentrations of 4,4-DDE are detected above the limit in this Order, the Board will re-evaluate the feasibility of the Discharger complying with the limits and will determine if a compliance schedule and interim performance limits are needed.

Alpha-BHC

83. The governing WQO for alpha-BHC is 0.013 ug/L, the human health value contained in the CTR. As noted in Finding 51, above, alpha-BHC has reasonable potential based on Trigger 1, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 0.013 µg/L monthly average and 0.026 µg/L daily maximum. The Discharger indicated in its January 18, 2002 Feasibility

Study that it is infeasible to comply immediately with the WQBELs. Therefore, pursuant to the provisions of the SIP, an interim effluent limit for alpha-BHC is required. The previous permit did not contain an effluent limit for alpha-BHC, and it is not possible to statistically determine current plant performance based on a single data point. Therefore, the interim effluent limit is the MEC, 0.04 µg/L. This interim effluent limit is based on the best professional judgement of Regional Board staff and is consistent with interim limits set in similar situations for other NBSU members.

Whole Effluent Acute Toxicity

84. This Order includes effluent limits for whole-effluent acute toxicity. Compliance evaluation is based on 96-hour flow-through bioassays. The U.S. EPA promulgated updated test methods for acute and chronic toxicity bioassays on October 16, 1995 in 40 CFR Part 136 (the 4th Edition). Dischargers have identified several practical and technical issues needing resolution before implementing the 4th Edition procedures. The primary unresolved issue is the use of younger, possibly more sensitive fish, which may require a reevaluation of permit limits. The State Board staff recommended to the Boards that holders of new or renewed permits be allowed a time period during which laboratories can become proficient in conducting the new tests. Provision 6, below, grants the Discharger 12 months to implement the new test methods. In the interim, the Discharger is required to continue using the current test protocols.

Whole Effluent Chronic Toxicity

85. The Discharger conducted a joint study on chronic toxicity with other NBSU members in the early 1990s. That study is no longer valid because one of the discharge contributors to NBSU has ceased operations and no longer discharges. Therefore, this permit requires the Discharger to conduct a new study to quantify the chronic toxicity in its discharge. The Board encourages the Discharger and other NBSU members to cooperatively conduct this study so as to maximize efficiency.

Coliform Limits

86. The Basin Plan's Table 4-2 and its footnotes allow fecal coliform limitations to be substituted for total coliform limitations provided that the Discharger conclusively demonstrates "through a program approved by the Board that such substitution will not result in unacceptable adverse impacts on the beneficial uses of the receiving waters". Several dischargers since 1992 have conducted chlorination reduction and receiving water impact monitoring studies, to support substitution of fecal for total coliform effluent limits. In the Board's prior actions to substitute fecal for total coliform limits, the Board has chosen to adopt the relevant fecal coliform water quality objectives as effluent limits. For deep water dischargers such as the NBSU with water contact recreation (REC-1) beneficial uses in the vicinity of their outfalls, the applicable WQOs are the Basin Plan's 5-day geometric-mean fecal coliform value of 200 MPN/100mL and 90th percentile limits of 400 MPN/100mL as effluent limits.

Pollutant Minimization/Pollution Prevention

87. The Discharger has an approved Pretreatment Program and has established a Pollution Prevention Program under the requirements specified by the Board.

    a. Section 2.4.5 of the SIP specifies under what situations and for which priority pollutant(s) (the reportable priority pollutants) the Discharger shall be required to conduct a Pollutant Minimization Program in accordance with Section 2.4.5.1.

b. There may be some redundancy required between the Pollution Prevention Program and the Pollutant Minimization Program.

c. Where the two programs' requirements overlap, the Discharger is allowed to continue, to modify, and/or to expand its existing Pollution Prevention Program to satisfy the Pollutant Minimization Program requirements.

d. For copper, mercury alpha BHC and dieldrin, the Discharger will conduct any additional source control measures in accordance with California Water Code 13263.3 and Section 2.1 of the SIP. Section 13263.3 establishes a separate process - outside of the NPDES permitting process - for preparing, reviewing, approving, and implementing such source control.

e. The Board staff intends to require an objective third party to establish model programs, and to review program proposals and reports for adequacy. This is to encourage use of Pollution Prevention and does not abrogate the Board's responsibility for regulation and review of the Discharger's Pollution Prevention Program. Board staff will work with the Discharger and other POTWs to identify the appropriate third party for this effort.

Special Studies

Required Studies

Dioxin Study

88. The SIP states that each Regional Board shall require major and minor POTWs and industrial Dischargers in its region to conduct effluent monitoring for 2,3,7,8-TCDD congeners listed in the Board's August 6, 2001 letter, regardless of whether an effluent limit is required for 2,3,7,8-TCDD. The monitoring shall be consistent with the Board's August 6, 2001 letter. The monitoring is intended to assess the presence and amounts of the congeners being discharged to inland surface waters, enclosed bays, and estuaries. The Boards will use these monitoring data to establish strategies for a future approach to controlling these compounds across different environmental media.

Effluent Characterization for Selected Constituents

89. Regional Board staff's review of effluent monitoring data from September 1994 through December 2000 found that there were insufficient monitoring data to determine reasonable potential for some pollutants listed in the SIP. Therefore, this Order requires additional monitoring for effluent characterization, pursuant to the requirements of Provision 3, below and the Board's August 6, 2001 letter.

Ambient Background Concentration Determination

90. Regional Board staff's review of the ambient background concentrations found that there were insufficient receiving water data to determine reasonable potential and calculate numeric WQBELs for some pollutants listed in the SIP. Therefore, this Order requires additional monitoring of ambient background concentrations pursuant to the requirements of Provision 4, below and the Board's August 6, 2001 letter.

Optional Studies

Optional Mass Offset.

91. This Order contains requirements to prevent further degradation of the impaired waterbody. Such requirements include the adoption of interim mass limits that are based on treatment plant performance, provisions for aggressive source control and waste minimization, feasibility studies for wastewater reclamation, and treatment plant optimization. After implementing these efforts, the Discharger may find that further net reductions of the total mass loadings of the 303(d)-listed pollutants to the receiving water can only be achieved through a mass offset program. This Order includes an optional provision for a mass offset program.

Copper Translator Study.

92. The Basin Plan does not establish a WQO for copper. Therefore, the CTR WQO for copper, 3.1 µg/L dissolved criteria, is the applicable standard. Since NPDES permit limits must be expressed as a total recoverable metal value, a translator is required to convert the dissolved objective into a total recoverable objective. Per Appendix 3 of the SIP, the default translator used in this permit is 0.83, which converts the 3.1 µg/L dissolved to 3.7 µg/L total. An optional copper translator study is included in this permit to encourage the Discharger to develop a local translator value for copper in place of the default translator value established in the SIP, 0.83. The discharger may use local RMP station data in the development of the translator.

Other Discharge Characteristics and Permit Conditions

Pretreatment Program

93. The Discharger has implemented and is maintaining a U.S. EPA approved pretreatment program in accordance with Federal pretreatment regulations (40 CFR 403) and the requirements specified in Attachment F "Pretreatment Requirements" and its revisions thereafter.

O & M Manual

94. The Discharger maintains an Operations and Maintenance Manual to provide plant and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.

NPDES Permit and CEQA

95. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (California Environmental Quality Act - CEQA) pursuant to Section 13389 of the California Water Code.

Notification

96. The Discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity to submit their written

views and recommendations. Responses to written comments are hereby incorporated by reference as part of this Order.

Public Hearing

97. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the City of Burlingame (discharger) shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater at a location or in a manner different from that described in this Order is prohibited.

2. Discharge of wastewater at any point where it does not receive an initial dilution of at least 10:1 is prohibited.

3. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited except as provided for bypasses under the conditions stated in 40 CFR Part 122.41 (m)(4) and in Standard Provision A.13. Bypassing of individual treatment processes, for example during periods of high wet weather flow, is allowable provided that the combined discharge of fully treated and partially treated wastewater complies with the effluent and receiving water limitations in this Order.

4. The discharge of average dry weather flows greater than 5.5 MGD is prohibited. The average dry weather flow shall be determined over three consecutive dry weather months each year.

5. Discharges of water, materials, or wastes other than storm water, which are not otherwise authorized by an NPDES permit, to a storm drain system or waters of the State are prohibited.

B. EFFLUENT LIMITATIONS

Conventional Pollutants

1. The following effluent limitations apply to effluent discharged to the NBSU joint discharge system (Sampling Station E-001 as defined in the Self-Monitoring Program) and thence to Lower San Francisco Bay through the discharge outfall (Sampling Station E-002 as defined in the Self-Monitoring Program). Chlorine residual shall be monitored at Sampling Station E-002 and reported by the Discharger.

   a. The effluent shall not exceed the following limits:

   Table 3. Effluent limitations for conventional constituents.

Constituent	Units	Monthly	Weekly	Daily	Instantaneous

		Average	Average	Maximum	Maximum
i Biochemical Oxygen Demand (BOD)	mg/L	30	45		
ii. Total Suspended Solids (TSS)	mg/L	30	45		
iii. Oil & Grease	mg/L	10		20	
iv. Settleable Matter	ml/L-hr	0.1		0.2	
v. Total Chlorine Residual[A]	mg/L				0.0

Footnote for Table 3

A. Requirement defined as below the limit of detection in standard test methods defined in the latest EPA approved edition of *Standard Methods for the Examination of Water and Wastewater*. The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, chlorine and sodium bisulfite dosage (including a safety factor) and concentration to prove that chlorine residual exceedences are false positives. If convincing evidence is provided, Board staff will conclude that these false positive chlorine residual exceedences are not violations of this permit limit. Chlorine residual compliance may be demonstrated by monitoring the combined discharge at the NBSU common outfall (E-002).

2. pH: The pH of the effluent shall not exceed 9.0 nor be less than 6.0.The Discharger shall be in compliance with the pH limitation specified herein, provided that all of the following conditions are satisfied:

   a. pH is monitored continuously;

   b. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and

   c. No individual excursion from the range of pH values shall exceed 60 minutes.

3. 85 Percent Removal, BOD and TSS

   The arithmetic mean of the biochemical oxygen demand (BOD_5 20^oC) and Total Suspended Solids (TSS) values, for effluent samples collected in each calendar month shall not exceed 15 percent of the arithmetic mean of the respective values, for influent samples collected at approximately the same times during the same period.

4. Fecal Coliform Bacteria

   The treated wastewater, at some point in the treatment process prior to discharge, shall meet the following limits of bacteriological quality:

   a. The five day geometric mean fecal coliform density shall not exceed a most probable number (MPN) of 200 MPN/100 mL, and

   b. the 90th percentile value of the last ten samples shall not exceed 400 MPN/100 mL.

Toxic Pollutants

Whole Effluent Acute Toxicity

5. Representative samples of the effluent shall meet the following limits for acute toxicity. Compliance with these limits shall be achieved in accordance with Provision 6 of this Order.

   a. The survival of bioassay test organisms in 96-hour bioassays of undiluted effluent shall be:

i. an 11-sample median value of not less than 90 percent survival, as defined in subsection b.i., below, and

ii. an 11-sample 90th percentile value of not less than 70 percent survival as defined in subsection b.ii., below.

b. These acute toxicity limits are further defined as follows:

i. 11-sample median limit:

Any bioassay test showing survival of 90 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or fewer bioassay tests also show less than 90 percent survival.

ii. 90th percentile limit:

Any bioassay test showing survival of 70 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten or fewer bioassay tests also showed less than 70 percent survival.

iii. Ammonia:

If the Discharger demonstrates to the satisfaction of the Executive Officer that toxicity exceeding the levels cited above is caused by ammonia and that the ammonia in the discharge is not adversely impacting receiving water quality or beneficial uses, then such toxicity does not constitute a violation of this effluent limit.

6. Whole Effluent Chronic Toxicity

Representative samples of the effluent shall meet the following requirements for chronic toxicity. Compliance with the Basin Plan narrative chronic toxicity objective shall be achieved in accordance with Provision 7 of this Order and shall be demonstrated according to the following tiered requirements based on results from representative samples of the treated final effluent meeting test acceptability criteria:

a. Routine monitoring;

b. Accelerated monitoring after exceeding either of the following two triggers:

i. a three sample median value of 10 chronic toxicity (TUc),or

ii. a single sample maximum of 20 TUc or greater.

Compliance shall be determined as described in Provision 7, below. Accelerated monitoring shall consist of monitoring at frequency intervals of one half the interval given for routine monitoring in the SMP of this Order;

c. Return to routine monitoring if accelerated monitoring does not exceed either trigger in subsection b., above;

d. Initiate approved Toxicity Identification Evaluation/Toxicity Reduction Evaluation (TIE/TRE) work plan if accelerated monitoring confirms consistent toxicity above either trigger in subsection 6.b, above. Monitoring and TRE requirements may be modified by the Executive Officer in response to the degree of toxicity detected in the effluent or in ambient waters related to the discharge. Failure to conduct the required toxicity tests or a TRE within a designated period shall result in the establishment of effluent limitations for chronic toxicity.

e. Return to routine monitoring after appropriate elements of TRE work plan are implemented and either the toxicity drops below both triggers in subsection 6.b, above , or the Executive Officer authorizes a return to routine monitoring, based on the results of the TRE.

Table 4. Toxic Substances.

The effluent shall not exceed the following limits:

Constituent		Daily Maximum	Monthly Average	Interim Daily Maximum	Interim Monthly Average	Units	Notes
CTR No.	Name						
6	Copper				27.0	µg/L	1, 6
8	Mercury				0.087	µg/L	1, 2
9	Nickel	64	32.7			µg/L	1
11	Silver	21.8	11.8			µg/L	1
13	Zinc	691	496			µg/L	1
14	Cyanide			10		µg/L	1, 3, 5
103	alpha-BHC				0.04	µg/L	1, 6
109	4,4-DDE	0.00119	0.00059			µg/L	1, 4
111	Dieldrin				0.075	µg/L	1, 6

Footnotes to Table 4:

1. a. Compliance with these limits is intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.

   b. All analyses shall be performed using current U.S. EPA methods, or equivalent methods approved in writing by the Executive Officer. The Discharger is in violation of the limit if the discharge concentration exceeds the effluent limitation and the reported minimum level (ML) for the analysis for that constituent.

   c. Limits apply to the average concentration of all samples collected during the averaging period (Daily = 24-hour period; Monthly = calendar month).

2. a. Mercury: Effluent mercury monitoring shall be performed by using ultra-clean sampling and analysis techniques, with a method detection limit of 0.002 µg/L or lower.

   b. This interim effluent limitation shall remain in effect until March 31, 2010, as further described in Finding 34, above.

3. Cyanide: Compliance may be demonstrated by measurement of weak acid dissociable cyanide.

4. 4,4-DDE: As outlined in Section 2.4.5 of the SIP, compliance with these final limits is determined by comparing the effluent data with the corresponding Minimum Levels in Appendix 4 of the SIP: 0.05 µg/L for 4,4-DDE.

5. This interim limit shall remain in effect until May 18, 2003, or until the Board amends the limit based on additional background data and/or site-specific objectives for cyanide. However, during the next permit revision, Board staff may re-evaluate the interim limits.

6. This interim limit shall remain in effect until February 28, 2007, or until the Board amends the limit based on additional data, site-specific objectives, or the Waste Load Allocation in the TMDL. However, during the next permit reissuance, Board staff may re-evaluate the interim limits.

7. Interim Mass Emission Limit for Mercury

Until the mercury TMDL and Waste Load Allocation are adopted, the Discharger shall demonstrate that the total mercury mass loading from its discharges to Lower San Francisco Bay has not increased by complying with the following conditions:

a. The total mercury mass load shall not exceed the mercury mass emission limit of 0.135 kilograms per month (kg/month), as computed in b, below.

b. Compliance with these limits shall be evaluated using monthly moving averages of total mass load, computed as described below:

$$12-Month\ Moving\ Average, kg/month = \frac{\sum(Last\ 12\ months'\ Monthly\ Total\ Mass\ Loads, kg/month)}{12}$$

where

$$Monthly\ Total\ Mass\ Load, kg/month = Q * C * 0.1151$$

where

Q = monthly average plant effluent flow, MGD, as reported

C = effluent concentration, µg/L, corresponding to each month's flow.

If more than one concentration measurement is obtained in a calendar month, the average of these measurements is used as the monthly concentration value for that month. If test results are less than the method detection limit used, the concentration value shall be assumed to be equal to the method detection limit.

0.1151 = unit conversion factor to obtain kg/month using monthly average flow in MGD and concentration in µg/L.

c. The discharger shall submit a cumulative total of mass loadings for the previous 12 months with each monthly Self-Monitoring Report. Compliance each month will be determined based on the 12-month moving averages over the previous 12 months of monitoring. The discharger may use monitoring data collected under accelerated schedules (i.e., special studies) to determine compliance.

d. The mercury TMDL and WLAs will supersede this mass emission limitation upon their completion. The Clean Water Act's antibacksliding rule, Section 402(o), indicates that this Order may be modified to include a less stringent requirement following completion of the TMDL and WLA, if the requirements for an exception to the rule are met.

C. RECEIVING WATER LIMITATIONS

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended, or deposited oil or other products of petroleum origin; and

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State at any one place within 1 foot of the water surface:

a.	Dissolved Oxygen:	5.0 mg/L, minimum The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, then the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.
b.	Dissolved Sulfide:	0.1 mg/L, maximum
c.	pH:	Variation from normal ambient pH by more than 0.5 pH units.
d.	Un-ionized Ammonia:	0.025 mg/L as N, annual median; and 0.16 mg/L as N, maximum.
e.	Nutrients:	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

3. The discharge shall not cause a violation of any particular water quality standard for receiving waters adopted by the Board or the State Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. SLUDGE MANAGEMENT PRACTICES

1. The discharger presently disposes of all stabilized, dewatered biosolids (sewage sludge) from the Discharger's wastewater treatment plant by land disposal under contract with SynaGro, Inc., as described in Finding 7, above. If the Discharger desires to dispose of sludge by a different method, the Discharger shall notify the Board and U.S. EPA in writing before start-up of the alternative disposal practice.

2. Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR Part 258. The discharger's annual self-monitoring report shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.

3. All sludge generated by the Discharger must be disposed of in a municipal solid waste landfill, or in accordance with the requirements of 40 CFR Part 503. All the requirements of 40 CFR Part 503 are enforceable by the U.S. EPA whether or not they are stated in an NPDES permit of other permit issued to the Discharger.

4. Sludge treatment, storage, and disposal or reuse shall not create a nuisance or result in groundwater contamination.

5. The treatment and temporary storage of sewage sludge at the Discharger's wastewater treatment facility shall not cause waste material to be in a position where it will be carried from the sludge treatment and storage site and deposited in the waters of the State.

6. Permanent on-site storage or disposal of sewage sludge at the Discharger's wastewater treatment facility is not authorized by this permit. A report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity by the Discharger.

7. The Board may amend this permit prior to expiration if changes occur in applicable state and federal sludge regulations.

E. PROVISIONS

Permit Compliance and Rescission of Previous Waste Discharge Requirements

1. The discharger shall comply with all sections of this Order beginning on March 1,2002. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 95-208 as amended by 98-117. Order No. 95-208 and 98-117 are hereby rescinded upon the effective date of this Order.

Special Studies

Cyanide Study and Schedule - Site-Specific Objective Study for Cyanide

2. The Discharger shall participate in a regional discharger-funded effort to conduct a study for cyanide data collection and development of site-specific objective. The cyanide study was submitted on October 29, 2001. The Board intends to include, in a subsequent permit revision, a final cyanide limit based on the study as an enforceable limit.

    a. Upon approval by the Executive Officer, the Discharger shall participate in the implementation of the cyanide study. Annual reports shall be submitted by January 31 of each year documenting the progress of the ambient background characterization, and site-specific objective studies. Annual report shall summarize the findings and progress to date, and include a realistic assessment of the shortest practicable time required to perform the remaining tasks of the studies.

b. By May 18, 2003, the Discharger, in co-operation with other Dischargers, shall complete the ambient background water quality characterization study for cyanide, and submit a report of the results.

c. By June 30, 2003, the Discharger, in co-operation with other Dischargers, shall submit a report of completion for the site-specific objective study for cyanide. This study shall be adequate to allow the Board to initiate the development and adoption of the site-specific objective for cyanide. This permit may be reopened to include a revised final limit based on the site-specific objective developed.

Effluent Characterization for Selected Constituents

3. The Discharger shall monitor and evaluate the discharged effluent for the constituents listed in Enclosure A of the Board's August 6, 2001 Letter. Compliance with this requirement shall be achieved in accordance with the specifications stated in the Board's August 6, 2001 Letter under Effluent Monitoring for major Dischargers. Interim and final reports shall be submitted to the Board in accordance with the schedule specified below (same schedule is also specified in August 6, 2001 Letter):

   a. The effluent monitoring shall be conducted according to the Discharger's September 27, 2001 effluent characterization study sampling plan, as ultimately approved by the Executive Officer, including any amendments required for approval.

   b. The Discharger shall submit technical reports acceptable to the Executive Officer documenting status and results of the study in accordance with the following:

Interim Report:	Submit report no later than:	May 18, 2003.
Final Report:	Submit report no later than:	July 31, 2006.

Ambient Background Receiving Water Study

4. The Discharger shall collect or participate in collecting background ambient receiving water data with other Dischargers and/or through the RMP. This information is required to perform RPAs and to calculate effluent limitation. On September 28, 2001, the Discharger, as a participating member of BACWA, submitted an ambient background receiving water study plan to the Executive Officer for approval. The Executive Officer conditionally approved this plan in November 2001. The Discharger shall submit technical reports acceptable to the Executive Officer documenting status and results of the study in accordance with the following:

b.	Interim Report	May 18, 2003
	Final Report	July 31, 2006

Pollutant Prevention and Minimization Program (PMP)

5. The Discharger shall continue to implement and improve its existing Pollution Prevention Program in order to reduce pollutant loadings to the treatment plant and therefore to the receiving waters.

   a. The Discharger shall submit an annual report, acceptable to the Executive Officer, no later than August 30th. **Annual reports shall cover July of the preceding year through June of the current year.** Annual reports shall include at least the following information:

      i. *A brief description of its treatment plant, treatment plant processes and service area.*

      ii. *A discussion of the current pollutants of concern.* Periodically, the Discharger shall analyze its own situation to determine which pollutants are currently a problem and/or which pollutants may be potential future problems. This discussion shall include the reasons why the pollutants were chosen.

      iii. *Identification of sources for the pollutants of concern.* This discussion shall include how the Discharger intends to estimate and identify sources of the pollutants. The Discharger should also identify sources or potential sources not directly within the ability or authority of the Discharger to control, such as pollutants in the potable water supply and air deposition.

      iv. *Identification of tasks to reduce the sources of the pollutants of concern.* This discussion shall identify and prioritize tasks to address the Discharger's pollutants of concern. Tasks can target its industrial, commercial, or residential sectors. The Discharger may implement tasks themselves or participate in group, regional, or national tasks that will address its pollutants of concern. The Discharger is strongly encouraged to participate in group, regional, or national tasks that will address its pollutants of concern whenever it is efficient and appropriate to do so. A time line shall be included for the implementation of each task.

      v. *Continuation of outreach tasks for City employees.* The Discharger shall continue outreach tasks for City employees. The overall goal of this task is to inform employees about the pollutants of concerns, potential sources, and how they might be able to help reduce the discharge of pollutants of concern into the treatment plant. The Discharger may provide a forum for employees to provide input to the Pollution Prevention Program.

      vi. *Continuation of a public outreach program.* The Discharger shall continue its public outreach program to communicate pollution prevention goals to its service area. Outreach may include participation in existing community events such as county fairs, initiating new community events such as displays and contests during Pollution Prevention Week, continuation of a school outreach program, conducting plant tours, and providing public information in newspaper articles or advertisements, radio, television stories or spots, newsletters, utility bill inserts, and web sites. Information shall be specific to the target audiences. The Discharger should coordinate with other agencies as appropriate.

      vii. *Discussion of criteria used to measure the Program's and tasks' effectiveness.* The Discharger shall establish criteria to evaluate the effectiveness of its Pollution Prevention Program. This shall also include a discussion of the specific criteria used to measure the effectiveness of each of the tasks in item a.iv, a.v, and a. vi, above.

      viii. *Documentation of efforts and progress.* This discussion shall detail all of the Discharger's activities in the Pollution Prevention Program during the reporting year.

ix. *Evaluation of Program's and tasks' effectiveness.* This Discharger shall utilize the criteria established in a.(vii) to evaluate the Program's and tasks' effectiveness.

x. *Identification of specific tasks and time schedules for future efforts.* Based on the evaluation, the Discharger shall detail how it intends to continue or change its tasks in order to more effectively reduce the amount of pollutants to the treatment plant, and subsequently in its effluent.

b. According to Section 2.4.5 of the SIP, when there is evidence that a priority pollutant is present in the effluent above an effluent limitation and either:

i. A sample result is reported as detected, but not quantified (less than the Minimum Level) and the effluent limitation is less than the reported Minimum Level; or

ii. A sample result is reported as not detected (less than the Method Detection Limit) and the effluent limitation is less than the Method Detection Limit;

the Discharger shall be required to expand its existing Pollution Prevention Program to include the reportable priority pollutant.

A priority pollutant becomes a reportable priority pollutant when:

i. there is evidence that it is present in the effluent above an effluent limitation and either (b)(i) or (b) (ii) is triggered, or

ii. the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level.

c. If triggered by the reasons in Provision 5.b, above, and when notified by the Executive Officer, the Discharger shall augment its Pollution Prevention Program within 6 months to include:

i. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling, or alternative measures approved by the Executive Officer, if it is demonstrated that source monitoring is unlikely to produce useful analytical data;

ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system, or alternative measures approved by the Executive Officer if it is demonstrated that influent monitoring is unlikely to produce useful analytical data;

iii. Submittal of a control strategy designed to proceed toward the goal of maintaining effluent concentrations of the reportable priority pollutant(s) at or below the effluent limitation;

iv. Development of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

v. An annual status report that shall be sent to the Board, including:

1) All Pollution Prevention monitoring results for the previous year;

2) A list of potential sources of the reportable priority pollutant(s);

3) A summary of all actions undertaken pursuant to the control strategy; and

4) A description of actions to be taken in the following year.

d. Where the requirements of the Pollution Prevention Program and the Pollutant Minimization Program overlap, the Discharger is allowed to continue, modify, and/or expand its existing Pollution Prevention Program to satisfy the Pollutant Minimization Program requirements.

e. These Pollution Prevention/Pollutant Minimization Program requirements are not intended to fulfill the requirements in The Clean Water Enforcement and Pollution Prevention Act of 1999 (Senate Bill 709).

Toxicity Requirements

Acute Toxicity

6. Compliance with acute toxicity requirements of this Order shall be achieved in accordance with the following:

a. From permit adoption date to **February 28, 2003**:

i. Compliance with the acute toxicity effluent limits of this Order shall be evaluated by measuring survival of test organisms exposed to 96-hour continuous flow-through bioassays.

ii. Test organisms shall be fathead minnows or three-spined sticklebacks unless specified otherwise in writing by the Executive Officer.

iii. All bioassays shall be performed according to the Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms, 3rd Edition, with exceptions granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP).

b. From **March 1, 2003** onward:

i. Compliance with the acute toxicity effluent limits of this Order shall be evaluated by measuring survival of test organisms exposed to 96-hour continuous flow-through bioassays, or static renewal bioassays. If the Discharger will use static renewal tests, or continue to use 3rd Edition Methods, they must submit a technical report by October 1, 2002, identifying the reasons why flow-through bioassay is not feasible using the approved EPA protocol (4th edition).

ii. Test organisms shall be fathead minnows unless specified otherwise in writing by the Executive Officer.

iii. All bioassays shall be performed according to the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms,"4th Edition, with exceptions granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP).

Whole Effluent Chronic Toxicity Requirements

7. The discharger shall monitor and evaluate effluent discharged to the Lower Bay Discharge outfall for chronic toxicity in order to demonstrate compliance with the Basin Plan narrative toxicity objective. Compliance with this requirement shall be achieved in accordance with the following.

   a. The discharger shall conduct routine chronic toxicity monitoring in accordance with the SMP of this Order.

   b. If data from routine monitoring exceed either of the following evaluation parameters, then the Discharger shall conduct accelerated chronic toxicity monitoring. Accelerated monitoring shall consist of monitoring at frequency intervals of one half the interval given for routine monitoring in the SMP of this Order.

   c. Chronic toxicity evaluation parameters:

      i. A three sample median value of 10 TUc; and

      ii. A single sample maximum value of 20 TUc.

      iii. These parameters are defined as follows:

         1) Three-sample median: A test sample showing chronic toxicity greater than 10 TU_c represents an exceedence of this parameter, if one of the past two or fewer tests also show chronic toxicity greater than 10 TU_c.

         2) TU_c (chronic toxicity unit): A TU_c equals 100/NOEL (e.g., If NOEL = 100, then toxicity = 1 TUc). NOEL is the no observed effect level determined from IC, EC, or NOEC values.

         3) The terms IC, EC, NOEL and NOEC and their use are defined in Attachment C of this Order.

   d. If data from accelerated monitoring tests are found to be in compliance with the evaluation parameters, then routine monitoring shall be resumed.

   e. If accelerated monitoring tests continue to exceed either evaluation parameter, then the Discharger shall initiate a chronic toxicity reduction evaluation (TRE).

   f. The TRE shall be conducted in accordance with the following:

      i. The discharger shall prepare and submit to the Board for Executive Officer approval a TRE work plan. An initial generic workplan shall be submitted within 120 days of the date of adoption of this Order. The workplan shall be reviewed and updated as necessary in order to remain current and applicable to the discharge and discharge facilities.

      ii. The TRE shall be initiated within 30 days of the date of completion of the accelerated monitoring test observed to exceed either evaluation parameter.

      iii. The TRE shall be conducted in accordance with an approved work plan.

iv. The TRE needs to be specific to the discharge and discharger facility, and be in accordance with current technical guidance and reference materials including U.S. EPA guidance materials. TRE shall be conducted as a tiered evaluation process, such as summarized below:

1) Tier 1 consists of basic data collection (routine and accelerated monitoring).

2) Tier 2 consists of evaluation of optimization of the treatment process including operation practices, and in-plant process chemicals.

3) Tier 3 consists of a toxicity identification evaluation (TIE).

4) Tier 4 consists of evaluation of options for additional effluent treatment processes.

5) Tier 5 consists of evaluation of options for modifications of in-plant treatment processes.

6) Tier 6 consists of implementation of selected toxicity control measures, and follow-up monitoring and confirmation of implementation success.

v. The TRE may be ended at any stage if monitoring finds there is no longer consistent toxicity.

vi. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity. All reasonable efforts using currently available TIE methodologies shall be employed.

vii. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the source(s) and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with chronic toxicity evaluation parameters.

viii. Many recommended TRE elements parallel required or recommended efforts of source control, pollution prevention and storm water control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of complying with requirements or recommended efforts of such programs may be acceptable to comply with TRE requirements.

ix. The Board recognizes that chronic toxicity may be episodic and identification of causes of and reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

g. Chronic Toxicity Monitoring Screening Phase Requirements, Critical Life Stage Toxicity Tests and definitions of terms used in the chronic toxicity monitoring are identified in Attachment C of the SMP. The discharger shall comply with these requirements as applicable to the discharge.

h. Board staff are in the process of evaluating data from previous ETCP chronic toxicity testing, and may revise the above chronic toxicity requirements based on the results of this evaluation.

Screening Plan For Chronic Toxicity: The Discharger shall conduct screening phase compliance monitoring as described in Attachment A of the attached Self Monitoring Program. The

Discharger shall submit, in writing, a proposed Screening Phase Study Plan acceptable to the Executive Officer by **June 30, 2002.** The Screening Phase Study Plan shall include an implementation schedule, and shall be implemented upon approval by the Executive Officer. Upon completion of the screening phase study, the Discharger shall submit a report acceptable to the Executive Officer which shall identify the most sensitive species, ongoing monitoring frequency, and am implementation schedule for ongoing monitoring.

Collection System Programs

8. Facility Operations during Wet Weather Conditions

   a. The Discharger shall maintain and operate the collection system in a manner to optimize control and conveyance of wastewater flows to the treatment plant facility.

   b. The Discharger shall maintain and operate the treatment plant facility in a manner to optimize treatment performance and ensure that discharges comply with secondary treatment limits at all times.

   c. In order to provide adequate overall reliability of the treatment process, especially during wet weather conditions, the Discharger shall at all times provide emergency stand-by power for all treatment units necessary to provide full secondary treatment, including disinfection processes. During wet weather flow conditions, the Discharger may use one of its aeration basins for flow equalization to achieve full secondary treatment of all wastewater.

Ongoing Programs

Regional Monitoring Program

9. The Discharger shall continue to participate in the Regional Monitoring Program (RMP) for trace substances in San Francisco Bay in lieu of more extensive effluent and receiving water self-monitoring requirements that may be imposed.

Pretreatment Program

10. The Discharger has implemented and is maintaining a U.S. EPA approved pretreatment program in accordance with Federal pretreatment regulations (40 CFR 403) and the requirements specified in Attachment F "Pretreatment Requirements" and its revisions thereafter.

Optional Studies

Optional Mass Offset

11. The discharger may submit to the Board for approval a mass offset plan to reduce 303(d) listed pollutants to the same watershed or drainage basin. The Board may modify this Order to allow an approved mass offset program.

Copper and Nickel Translator Study and Schedule

12. In order to develop information that may be used to establish water quality based effluent limits based on dissolved criteria for copper and nickel, the Discharger may utilize RMP data from stations nearest the Discharger's outfall. Copper and nickel translators will be calculated as part of the technical work being conducted for the North of Dumbarton copper/nickel TMDL/SSO project. Optionally, the Discharger may implement a sampling plan to collect data for development of dissolved-to-total translators for copper and nickel. If the Discharger chooses to proceed with the study, which may be conducted in cooperation with other Dischargers, the work shall be performed in accordance with the following tasks:

    a. Copper and Nickel Translator Study Plan. The Discharger shall submit a study plan, acceptable to the Executive Officer, for collection of data that can be used for establishment of a dissolved to total copper translator, as discussed in the Findings.

    b. After Executive Officer approval, the Discharger shall begin implementation of the study plan. The study plan shall provide for development of translators in accordance with the State Board's SIP, EPA guidelines, California Department of Fish and Game approval, and any relevant portions of the Basin Plan, as amended.

    c. Copper and Nickel Translator Final Report: The Discharger shall conduct the translator study by using field sampling data approximate to the discharge point and in the vicinity of the discharge point, or as otherwise provided for in the approved workplan, and shall submit a report, acceptable to the Executive Officer, no later than February 28, 2004, documenting the results of the copper translator study. The study may be conducted in coordination with other Dischargers and may also include any other site specific information that the Discharger would like the Board to consider in development of a water quality based effluent limitation for copper and nickel.

Facilities Status Reports and Permit Administration

13. Wastewater Facilities, Review and Evaluation, and Status Reports

    a. The discharger shall operate and maintain its wastewater collection, treatment and disposal facilities in a manner to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the Discharger's service responsibilities.

    b. The discharger shall regularly review and evaluate its wastewater facilities and operation practices in accordance with section a. above. Reviews and evaluations shall be conducted as an ongoing component of the Discharger's administration of its wastewater facilities.

    c. Annually, the Discharger shall submit to the Board a report describing the current status of its wastewater facility review and evaluation, including any recommended or planned actions and an estimated time schedule for these actions. This report shall include a description or summary of review and evaluation procedures, and applicable wastewater facility programs or capital improvement projects. This report shall be submitted in accordance with the Annual Status Report Provision below.

14. Operations and Maintenance Manual, Review and Status Reports

a. The discharger shall maintain an Operations and Maintenance Manual (O & M Manual) as described in the findings of this Order for the Discharger's wastewater facilities. The O & M Manual shall be maintained in useable condition, and available for reference and use by all applicable personnel.

b. The discharger shall regularly review, and revise or update as necessary, the O & M Manual(s) in order for the document(s) to remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and revisions or updates shall be completed as necessary. For any significant changes in treatment facility equipment or operation practices, applicable revisions shall be completed within 90 days of completion of such changes.

c. Annually, the Discharger shall submit to the Board a report describing the current status of its O & M Manual review and updating. This report shall include an estimated time schedule for completion of any revisions determined necessary, a description of any completed revisions, or a statement that no revisions are needed. This report shall be submitted in accordance with the Annual Status Report Provision below.

15. Contingency Plan, Review and Status Reports

a. The discharger shall maintain a Contingency Plan as required by Board Resolution 74-10 (attached), and as prudent in accordance with current municipal facility emergency planning. The discharge of pollutants in violation of this Order where the Discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

b. The discharger shall regularly review, and update as necessary, the Contingency Plan in order for the plan to remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and updates shall be completed as necessary.

c. Annually, the Discharger shall submit to the Board a report describing the current status of its Contingency Plan review and update. This report shall include a description or copy of any completed revisions, or a statement that no changes are needed. This report shall be submitted in accordance with the Annual Status Report Provision below.

Annual Status Reports

16. The annual reports identified in Provisions 13.c, 14.c, and 15.c, above, shall be submitted to the Board by June 30 of each year. Modification of report submittal dates may be authorized, in writing, by the Executive Officer.

303(d)-listed Pollutants Site-Specific Objective and TMDL Status Review

17. The Discharger shall participate in the development of a TMDL or site-specific objective for copper, nickel, mercury, 4,4-DDE, and dieldrin. By January 31 of each year, the Discharger shall submit an update to the Board to document its participation efforts toward development of the TMDL(s) or site-specific objective(s). Regional Board staff shall review the status of TMDL development. This Order may be reopened in the future to reflect any changes required by TMDL development.

New Water Quality Objectives

18. As new or revised water quality objectives come into effect for the Bay and contiguous water bodies (whether statewide, regional or site-specific), effluent limitations in this Order will be modified as necessary to reflect updated water quality objectives. Adoption of effluent limitations contained in this Order are not intended to restrict in any way future modifications based on legally adopted water quality objectives.

Self-Monitoring Program

19. The discharger shall comply with the Self-Monitoring Program (SMP) for this Order as adopted by the Board. The SMPs may be amended by the Executive Officer pursuant to U.S. EPA regulation 40 CFR122.62, 122.63, and 124.5.

Standard Provisions and Reporting Requirements

20. The discharger shall comply with all applicable items of the Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, August 1993 (attached), or any amendments thereafter. Where provisions or reporting requirements specified in this Order are different from equivalent or related provisions or reporting requirements given in 'Standard Provisions', the specifications of this Order shall apply.

Change in Control or Ownership

21. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Board.

22. To assume responsibility of and operations under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order (see Standard Provisions & Reporting Requirements, August 1993, Section E.4.). Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

Permit Reopener

23. The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge(s) governed by this Order will or have the potential to cause or contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

NPDES Permit

24. This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective March 1, 2002, provided the U.S. EPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

Order Expiration and Reapplication

25. This Order expires January 31, 2007.

26. In accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, the Discharger must file a report of waste discharge no later than 180 days before the expiration date of this Order as application for reissue of this permit and waste discharge requirements.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 27, 2002.

_____
LORETTA K. BARSAMIAN
Executive Officer

Attachments:

A. Discharge Facility Location Map
B. Discharge Facility Treatment Process Diagram
C. Self-Monitoring Program
D. Standard Provisions and Reporting Requirements, August 1993
E. Board Resolution No. 74-10 (available on request)
F. Pretreatment Program Requirements
G. June 11, 2001 Regional Board staff report "Staff Report, Statistical Analysis of Pooled Data from Region-Wide Ultra-clean Mercury Sampling."
H. January 18, 2002 City of Burlingame *Updated Feasibility Study and Request For Compliance Schedule for City of Burlingame, NPDES Permit No. CA0037788*
I. Fact Sheet For NPDES Permit And Waste Discharge Requirements
J. January 18, 2002 City of Burlingame *Comments on the Tentative Order Dated December 21, 2001, Reissuing NPDES Permit No. CA0037788*
K. Regional Board staff *Response To Comments for Item No. 14, Public Hearing on City of Burlingame Waste Water Treatment Plant NPDES Permit Reissuance*

Attachment A.
Discharge Facility Location Map

Attachment B.
Discharge Facility Treatment Process Diagram

Attachment C.
Self-Monitoring Program

Attachment D.
Standard Provisions and Reporting Requirements, August 1993

Attachment E.
Board Resolution No. 74-10
(available on request)

Attachment F.
Pretreatment Program Requirements

Attachment G.
June 11, 2001 Regional Board staff report
"Staff Report, Statistical Analysis of Pooled Data from Region-Wide Ultra-clean Mercury Sampling."

Attachment H.
Discharger's January 18, 2002
Feasibility Study for Selected Constituents

Attachment I.

Fact Sheet For

NPDES Permit And Waste Discharge Requirements

Attachment J

City of Burlingame Comments on the Tentative Order Dated December 21, 2001, Reissuing NPDES Permit No. CA0037788

Attachment K

Regional Board staff Response To Comments

Pretreatment Program Provisions

1. The Discharger shall implement all pretreatment requirements contained in 40 CFR 403, as amended. The Discharger shall be subject to enforcement actions, penalties, and fines as provided in the Clean Water Act (33 USC 1351 et seq.), as amended. The Discharger shall implement and enforce their respective Approved Pretreatment Programs or modified Pretreatment Programs as directed by the Board's Executive Officer or the EPA. The EPA and/or the State may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements as provided in the Clean Water Act.

2. The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d) and 402(b) of the Clean Water Act. The Discharger shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.

3. The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403 and amendments or modifications thereto including, but not limited to:

   i) Implement the necessary legal authorities to fully implement the pretreatment regulations as provided in 40 CFR 403.8(f)(1);

   ii) Implement the programmatic functions as provided in 40 CFR 403.8(f)(2);

   iii) Publish an annual list of industrial users in significant noncompliance as provided per 40 CFR 403.8(f)(2)(vii);

   iv) Provide for the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3); and

   v) Enforce the national pretreatment standards for prohibited discharges and categorical standards as provided in 40 CFR 403.5 and 403.6, respectively.

4. The Discharger shall submit annually a report to the EPA Region 9, the State Board and the Board describing the Discharger's respective pretreatment program activities over the previous twelve months. In the event that the Discharger is not in compliance with any conditions or requirements of this permit, the Discharger shall also include the reasons for noncompliance and a plan and schedule for achieving compliance. The report shall contain, but is not limited to, the information specified in **Appendix A** entitled, "Requirements for Pretreatment Annual Reports," which is made a part of this Order. The annual report is due on the last day of February each year.

5. The Discharger shall submit semiannual pretreatment reports to the EPA Region 9, the State Board and the Board describing the status of their respective significant industrial users (SIUs). The report shall contain, but not is limited to, the information specified in **Appendix B** entitled, "Requirements for Semiannual Pretreatment Reports," which is made part of this Order. The semiannual reports are due July 31st (for the period January through June) and January 31st (for the period July through December) of each year. The Executive Officer may exempt a Discharger from the semiannual reporting requirements on a case by case basis subject to State Board and EPA's comment and approval.

6. The Discharger may combine the annual pretreatment report with the semiannual pretreatment report (for the July through December reporting period). The combined report shall contain all of the information requested in Appendices A and B and will be due on January 31st of each year.

7. The Discharger shall conduct the monitoring of its treatment plant's influent, effluent, and sludge as described in **Appendix C** entitled, "Requirements for Influent, Effluent and Sludge Monitoring," which is made part of this Order. The results of the sampling and analysis, along with a discussion of any trends, shall be submitted in the semiannual reports. A tabulation of the data shall be included in the annual pretreatment report. The Executive Officer may require more or less frequent monitoring on a case by case basis.

APPENDIX A

REQUIREMENTS FOR PRETREATMENT ANNUAL REPORTS

The Pretreatment Annual Report is due each year on the last day of February. [If the annual report is combined with the semiannual report (for the July through December period) the submittal deadline is January 31st of each year.] The purpose of the Annual Report is 1) to describe the status of the Publicly Owned Treatment Works (POTW) pretreatment program and 2) to report on the effectiveness of the program, as determined by comparing the results of the preceding year's program implementation. The report shall contain at a minimum, but is not limited to, the following information:

1) **Cover Sheet**

The cover sheet must contain the name(s) and National Pollutant Discharge Elimination Discharge System (NPDES) permit number(s) of those POTWs that are part of the Pretreatment Program. Additionally, the cover sheet must include: the name, address and telephone number of a pretreatment contact person; the period covered in the report; a statement of truthfulness; and the dated signature of a principal executive officer, ranking elected official, or other duly authorized employee who is responsible for overall operation of the POTW (40 CFR 403.12(j)).

2) **Introduction**

The Introduction shall include any pertinent background information related to the City/ District/Agency, the POTW and/or the Industrial base of the area. Also, this section shall include an update on the status of any Pretreatment Compliance Inspection (PCI) tasks, Pretreatment Performance Evaluation tasks, Pretreatment Compliance Audit (PCA) tasks, Cleanup and Abatement Order (CAO) tasks, or other pretreatment-related enforcement actions required by the Board or the EPA. A more specific discussion shall be included in the section entitled, "Program Changes."

3) **Definitions**

This section shall contain a list of key terms and their definitions that the POTW uses to describe or characterize elements of its pretreatment program.

4) **Discussion of Upset, Interference and Pass Through**

This section shall include a discussion of Upset, Interference or Pass Through incidents, if any, at the POTW(s) that the Discharger knows of or suspects were caused by industrial discharges. Each incident shall be described, at a minimum, consisting of the following information:

a) a description of what occurred;

b) a description of what was done to identify the source;

c) the name and address of the IU responsible

d) the reason(s) why the incident occurred;

e) a description of the corrective actions taken; and

f) an examination of the local and federal discharge limits and requirements for the purposes of determining whether any additional limits or changes to existing requirements may be necessary to prevent other Upset, Interference or Pass Through incidents.

5) **Influent, Effluent and Sludge Monitoring Results**

This section shall provide a summary of the analytical results from the "Influent, Effluent and Sludge Monitoring" as specified in Appendix C. The results should be reported in a summary matrix that lists monthly influent and effluent metal results for the reporting year.

A graphical representation of the influent and effluent metal monitoring data for the past five years shall also be provided with a discussion of any trends.

6) **Inspection and Sampling Program**

This section shall contain at a minimum, but is not limited to, the following information:

a) Inspections: the number of inspections performed for each type of IU; the criteria for determining the frequency of inspections; the inspection format procedures;

b) Sampling Events: the number of sampling events performed for each type of IU; the criteria for determining the frequency of sampling; the chain of custody procedures.

7) **Enforcement Procedures**

This section shall provide information as to when the approved Enforcement Response Plan (ERP) had been formally adopted or last revised. In addition, the date the finalized ERP was submitted to the Board shall also be given.

8) **Federal Categories**

This section shall contain a list of all of the federal categories that apply to the POTW. The specific category shall be listed including the subpart and 40 CFR section that applies. The maximum and average limits for the each category shall be provided. This list shall indicate the number of Categorical Industrial Users (CIUs) per category and the CIUs that are being regulated pursuant to the category. The information and data used to determine the limits for those CIUs for which a combined waste stream formula is applied shall also be provided.

9) **Local Standards**

This section shall include a table presenting the local limits.

10) **Updated List of Regulated SIUs**

This section shall contain a complete and updated list of the Discharger's Significant Industrial Users (SIUs), including their names, addresses, and a brief description of the SIU's type of business. The list shall include all deletions and additions keyed to the list as submitted in the previous annual report. All deletions shall be briefly explained.

11) **Compliance Activities**

a) **Inspection and Sampling Summary:** This section shall contain a summary of all the inspections and sampling activities conducted by the Discharger over the past year to gather information and data regarding the SIUs. The summary shall include:

(1) the number of inspections and sampling events conducted for each SIU;

(2) the quarters in which these activities were conducted; and

(3) the compliance status of each SIU, delineated by quarter, and characterized using all applicable descriptions as given below:

(a) in consistent compliance;

(b) in inconsistent compliance;

(c) in significant noncompliance;

(d) on a compliance schedule to achieve compliance, (include the date final compliance is required);

(e) not in compliance and not on a compliance schedule;

(f) compliance status unknown, and why not.

b) **Enforcement Summary:** This section shall contain a summary of the compliance and enforcement activities during the past year. The summary shall include the names of all the SIUs affected by the following actions:

(1) Warning letters or notices of violations regarding SIUs' apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements. For each notice, indicate whether it was for an infraction of a federal or local standard/limit or requirement.

(2) Administrative Orders regarding the SIUs' apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements. For each notice, indicate whether it was for an infraction of a federal or local standard/limit or requirement.

(3) Civil actions regarding the SIUs' apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements. For each notice, indicate whether it was for an infraction of a federal or local standard/limit or requirement.

(4) Criminal actions regarding the SIUs' apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements. For each notice, indicate whether it was for an infraction of a federal or local standard/limit or requirement.

(5) Assessment of monetary penalties. Identify the amount of penalty in each case and reason for assessing the penalty.

(6) Order to restrict/suspend discharge to the POTW.

(7) Order to disconnect the discharge from entering the POTW.

12) **Baseline Monitoring Report Update**

This section shall provide a list of CIUs that have been added to the pretreatment program since the last annual report. This list of new CIUs shall summarize the status of the respective Baseline Monitoring Reports (BMR). The BMR must contain all of the information specified in 40 CFR 403.12(b). For each of the new CIUs, the summary shall indicate when the BMR was due; when the CIU was notified by the POTW of this requirement; when the CIU submitted the report; and/or when the report is due.

13) **Pretreatment Program Changes**

This section shall contain a description of any significant changes in the Pretreatment Program during the past year including, but not limited to: legal authority, local limits, monitoring/ inspection program and frequency, enforcement protocol, program's administrative structure, staffing level, resource requirements and funding mechanism. If the manager of the pretreatment program changes, a revised organizational chart shall be included. If any element(s) of the program is in the process of being modified, this intention shall also be indicated.

14) **Pretreatment Program Budget**

This section shall present the budget spent on the Pretreatment Program. The budget, either by the calendar or fiscal year, shall show the amounts spent on personnel, equipment, chemical analyses and any other appropriate categories. A brief discussion of the source(s) of funding shall be provided.

15) **Public Participation Summary**

This section shall include a copy of the public notice as required in 40 CFR 403.8(f)(2)(vii). If a notice was not published, the reason shall be stated.

16) **Sludge Storage and Disposal Practice**

This section shall have a description of how the treated sludge is stored and ultimately disposed. The sludge storage area, if one is used, shall be described in detail. Its location, a description of the containment features and the sludge handling procedures shall be included.

17) **PCS Data Entry Form**

The annual report shall include the PCS Data Entry Form. This form shall summarize the enforcement actions taken against SIUs in the past year. This form shall include the following information: the POTW name, NPDES Permit number, period covered by the report, the number of SIUs in significant noncompliance (SNC) that are on a pretreatment compliance schedule, the number of notices of violation and administrative orders issued against SIUs, the number of civil and criminal judicial actions against SIUs, the number of SIUs that have been published as a result of being in SNC, and the number of SIUs from which penalties have been collected.

18) **Other Subjects**

Other information related to the Pretreatment Program that does not fit into one of the above categories should be included in this section.

Signed copies of the reports shall be submitted to the Regional Administrator at USEPA, the State Water Resources Control Board and the Board at the following addresses:

Regional Administrator
United States Environmental Protection Agency
Region 9, Mail Code: WTR-7
Clean Water Act Compliance Office
Water Division
75 Hawthorne Street
San Francisco, CA 94105

Pretreatment Program Manager
Regulatory Unit
State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento, CA 95814

Pretreatment Coordinator
NPDES Permits Division
SF Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

APPENDIX B:

REQUIREMENTS FOR SEMIANNUAL PRETREATMENT REPORTS

The semiannual pretreatment reports are due on July 31st (for pretreatment program activities conducted from January through June) and January 31st (for pretreatment activities conducted from July through December) of each year, unless an exception has been granted by the Board's Executive Officer. The semiannual reports shall contain, at a minimum, but is not limited to, the following information:

1) **Influent, Effluent and Sludge Monitoring**

The influent, effluent and sludge monitoring results shall be included in the report. The analytical laboratory report shall also be included, with the QA/QC data validation provided upon request. A description of the sampling procedures and a discussion of the results shall be given. (Please see Appendix C for specific detailed requirements.) The contributing source(s) of the parameters that exceed NPDES limits shall be investigated and discussed. In addition, a brief discussion of the contributing source(s) of all organic compounds identified shall be provided.

The Discharger has the option to submit all monitoring results via an electronic reporting format approved by the Executive Officer. The procedures for submitting the data will be similar to the electronic submittal of the NPDES self-monitoring reports as outlined in the December 17, 1999 Regional Board letter, Official Implementation of Electronic Reporting System (ERS). The Discharger shall contact the Board's ERS Project Manager for specific details in submitting the monitoring data.

If the monitoring results are submitted electronically, the analytical laboratory reports (along with the QA/QC data validation) should be kept at the Discharger's facility.

2) **Industrial User Compliance Status**

This section shall contain a list of all Significant Industrial Users (SIUs) that were not in consistent compliance with all pretreatment standards/limits or requirements for the reporting period. The compliance status for the previous reporting period shall also be included. Once the SIU has determined to be out of compliance, the SIU shall be included in the report until consistent compliance has been achieved. A brief description detailing the actions that the SIU undertook to come back into compliance shall be provided.

For each SIU on the list, the following information shall be provided:

a. Indicate if the SIU is subject to Federal categorical standards; if so, specify the category including the subpart that applies.

b. For SIUs subject to Federal Categorical Standards, indicate if the violation is of a categorical or local standard.

c. Indicate the compliance status of the SIU for the two quarters of the reporting period.

d. For violations/noncompliance occurring in the reporting period, provide (1) the date(s) of violation(s); (2) the parameters and corresponding concentrations exceeding the limits and the discharge limits for these parameters and (3) a brief summary of the noncompliant event(s) and the steps that are being taken to achieve compliance.

3) **POTW's Compliance with Pretreatment Program Requirements**

This section shall contain a discussion of the Discharger's compliance status with the Pretreatment Program Requirements as indicated in the latest Pretreatment Compliance Audit (PCA) Report, Pretreatment Compliance Inspection (PCI) Report or Pretreatment Performance Evaluation (PPE) Report. It shall contain a summary of the following information:

a. Date of latest PCA, PCI or PPE and report.

b. Date of the Discharger's response.

c. List of unresolved issues.

d. Plan and schedule for resolving the remaining issues.

The reports shall be signed by a principal executive officer, ranking elected official, or other duly authorized employee who is responsible for the overall operation of the Publicly Owned Treatment Works (POTW) (40 CFR 403.12(j)). Signed copies of the reports shall be submitted to the Regional Administrator at USEPA, the State Water Resources Control Board and the Board at the following addresses:

Regional Administrator
United States Environmental Protection Agency
Region 9, Mail Code: WTR-7
Clean Water Act Compliance Office
Water Division
75 Hawthorne Street
San Francisco, CA 94105

Pretreatment Program Manager
Regulatory Unit
State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento, CA 95814

Pretreatment Coordinator
NPDES Permits Division
SF Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

APPENDIX C

REQUIREMENTS FOR INFLUENT, EFFLUENT AND SLUDGE MONITORING

The Discharger shall conduct sampling of their respective treatment plant's influent, effluent and sludge at the frequency as shown in Tables 1and 3 of the Self Monitoring Program**.**

The monitoring and reporting requirements of the POTW's Pretreatment Program are in addition to those specified in the individual POTW's NPDES permit. Any subsequent modifications of the NPDES requirements shall be adhered to and shall not affect the requirements described in this Appendix unless written notice from the Board is received. When sampling periods coincide, one set of test results, reported separately, may be used for those parameters that are required to be monitored in both the Discharger's NPDES permit and Pretreatment Program. Monitoring reports required by this Order shall be sent to the Pretreatment Coordinator.

1. **Influent and Effluent Monitoring**

The Discharger shall monitor for the parameters using the required test methods listed in Table 3 of the Self Monitoring Program. Any test method substitutions must have received prior written Regional Board approval. In addition, unless instructed otherwise in writing, the Discharger shall continue to monitor for those parameters at the frequency stated in Table 1. Influent and Effluent sampling locations shall be the same as those sites specified in the POTW's Self-Monitoring Program as set forth in its NPDES permit.

The influent and effluent sampled should be taken during the same 24-hour period. All samples must be representative of daily operations. A grab sample shall be used for volatile organic compounds, cyanide and phenol. In addition, any samples for oil and grease, polychlorinated biphenyls, dioxins/furans, and polynuclear aromatic hydrocarbons shall be grab samples. For all other pollutants, 24-hour composite samples must be obtained through flow-proportioned composite sampling. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto. For effluent monitoring, the reporting limits for the individual parameters shall be at or below the minimum levels (MLs) as stated in the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2000) [also known as the State Implementation Policy (SIP)]; any revisions to the MLs shall be adhered to. If a parameter does not have a stated minimum level, then the Discharger shall conduct the analysis using the lowest commercially available and reasonably achievable detection levels.

The following standardized report format should be used for submittal of the influent and effluent monitoring report. A similar structured format may be used but will be subject to Regional Board approval. The monitoring reports shall be submitted with the Semiannual Reports.

A. Sampling Procedures – This section shall include a brief discussion of the sample locations, collection times, how the sample was collected (i.e., direct collection using vials or bottles, or other types of collection using devices such as automatic samplers, buckets, or beakers), types of containers used, storage procedures and holding times. Include description of prechlorination and chlorination/dechlorination practices during the sampling periods.

B. Method of Sampling Dechlorination – A brief description of the sample dechlorination method prior to analysis shall be provided.

C. Sample Compositing – The manner in which samples are composited shall be described. If the compositing procedure is different from the test method specifications, a reason for the variation shall be provided.

D. Data Validation – All quality assurance/quality control (QA/QC) methods to be used shall be discussed and summarized. These methods include, but are not limited to, spike samples, split samples, blanks and standards. Ways in which the QA/QC data will be used to qualify the analytical test results shall be identified. A certification statement shall be submitted with this discussion stating that the laboratory QA/QC validation data has been reviewed and has met the laboratory acceptance criteria. The QA/QC validation data shall be submitted to the Board upon request.

E. A tabulation of the test results shall be provided.

F. Discussion of Results – The report shall include a complete discussion of the test results. If any pollutants are detected in sufficient concentration to upset, interfere or pass through plant operations, the type of pollutant(s) and potential source(s) shall be noted, along with a plan of action to control, eliminate, and/or monitor the pollutant(s). Any apparent generation and/or destruction of pollutants attributable to chlorination/dechlorination sampling and analysis practices shall be noted.

2. **Sludge Monitoring**

Sludge should be sampled in the same 24-hour period during which the influent and effluent are sampled except as noted in (C) below. The same parameters required for influent and effluent analysis shall be included in the sludge analysis. The sludge analyzed shall be a composite sample of the sludge for final disposal consisting of:

A. Sludge lagoons – 20 grab samples collected at representative equidistant intervals (grid pattern) and composited as a single grab, or

B. Dried stockpile – 20 grab samples collected at various representative locations and depths and composited as a single grab, or

C. Dewatered sludge- daily composite of 4 representative grab samples each day for 5 days taken at equal intervals during the daily operating shift taken from a) the dewatering units or b) from each truckload, and shall be combined into a single 5-day composite.

The U.S. EPA manual, POTW Sludge Sampling and Analysis Guidance Document, August 1989, containing detailed sampling protocols specific to sludge is recommended as a guidance for sampling procedures. The U.S. EPA manual Analytical Methods of the National Sewage Sludge Survey, September 1990, containing detailed analytical protocols specific to sludge, is recommended as a guidance for analytical methods.

In determining if the sludge is a hazardous waste, the Dischargers shall adhere to Article 2, “Criteria for Identifying the Characteristics of Hazardous Waste,” and Article 3, “Characteristics of Hazardous Waste,” of Title 22, California Code of Regulations, Sections 66261.10 to 66261.24 and all amendments thereto.

Sludge monitoring reports shall be submitted with the appropriate Semiannual Report. The following standardized report format should be used for submittal of the report. A similarly structured form may be used but will be subject to Regional Board approval.

A. Sampling procedures – Include sample locations, collection procedures, types of containers used, storage/refrigeration methods, compositing techniques and holding times. Enclose a map of sample locations if sludge lagoons or stockpiled sludge is sampled.

B. Data Validation – All quality assurance/quality control (QA/QC) methods to be used shall be discussed and summarized. These methods include, but are not limited to, spike samples, split samples, blanks and standards. Ways in which the QA/QC data will be used to qualify the analytical test results shall be identified. A certification statement shall be submitted with this discussion stating that the laboratory QA/QC validation data has been reviewed and has met the laboratory acceptance criteria. The QA/QC validation data shall be submitted to the Board upon request.

C. Test Results – Tabulate the test results and include the percent solids.

D. Discussion of Results – The report shall include a complete discussion of test results. If the detected pollutant(s) is reasonably deemed to have an adverse effect on sludge disposal, a plan of action to control, eliminate, and/or monitor the pollutant(s) and the known or potential source(s) shall be included. Any apparent generation and/or destruction of pollutants attributable to chlorination/ dechlorination sampling and analysis practices shall be noted.

The Discharger shall also provide any influent, effluent or sludge monitoring data for nonpriority pollutants that the permittee believes may be causing or contributing to Interference, Pass Through or adversely impacting sludge quality.